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METEOROLOGICAL SERVICE, DOMINION OF CANADA.

Monthly Weather Review.

VOL. XXV JANUARY, 1901. No. 1

INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm signal agents. For the material used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

REMARKS UPON THE WEATHER.

The weather in Canada during January did not depart much from the normal, nevertheless there were some marked local differences in temperature, more especially in the North-west Territories. In some of the Eastern Provinces sudden changes of temperature were rather frequent, but the range was not excessive nor were the cold periods unusually severe. Few important storms were reported and although the snow that fell was somewhat drifted there was good sleighing in most districts throughout the month.

The weather in British Columbia did not differ much from average generally, but the temperature and precipitation in some districts were below average, whilst in others they were somewhat above. In Vancouver Island the proportion of bright sunshine was slightly above average whilst on the mainland clouded skies were rather more frequent than usual. The most severe frosts occurred on or about the 9th when the temperature fell well below zero at many places in the mountains; after this date in this portion of the province the weather was comparatively mild and pleasant to the end of the month.

In the North-west Territories the weather was unusually mild and although the proportion of bright sunshine was somewhat below average there was much fine calm weather. The amount of precipitation varied with the district, it being somewhat below average at many stations and above at others. Over the greater portion of the country there was a good covering of snow, but in the vicinity of Calgary the ground was almost bare throughout the greater portion of the month. The lowest temperatures, which occurred at most places early in the month, were generally between 30° and 40° below zero. At Battleford ice measured 30 inches, at Medicine Hat 16 inches, and at Swift Current 26 inches.

The weather in Manitoba though not quite so mild as in the Territories was much milder than usual, and in most districts the precipitation was also above average. The coldest weather occurred on or about the 2nd, when the temperature fell to between 30° and 40° below zero. Clouded skies were somewhat more frequent than usual and high winds with much drifting occurred upon several occasions. The thickness of ice at Minnedosa was 24 inches, and at Barnardo 13 inches.

The chief characteristics of the weather in Ontario were frequent and sudden changes of temperature, high mean temperature in western districts, and low mean temperature in eastern districts; also somewhat less bright sunshine than usual, and precipitation, which was chiefly snow, below average generally. The lowest temperature occurred at nearly all stations on or about the 3rd or 19th, when it was well below zero,—20° or lower being recorded at many places. In northern districts there was good sleighing throughout the month but in the southern portion of the province it was not good until after the 11th. The thickness of ice was 19·5 inches at Port Arthur and 10 inches at Parry Sound, Hamilton and Kingston.

In the Province of Quebec the precipitation was unusually light, but with this exception the weather did not depart much from the normal. The coldest weather occurred at most places on or about the 20th, when the temperature fell to between 20° and 30° below zero. The depth of snow on the 31st varied between 25 and 33 inches, and there was good sleighing throughout the month. In the vicinity of Montreal there was heavy rain on the 16th, and the heaviest snowfalls occurred on the 10th, 12th, 27th and 28th.

The weather in New Brunswick was somewhat milder than usual in most districts and with a few exceptions the precipitation exceeded the average. Little rain fell, and throughout the month there was good sleighing. There were frequent high winds when the snow was much drifted, but there were no important

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gales The temperature dropped well below zero on or about the 20th, from —10° to —26° being recorded. At Fredericton the thickness of ice on the 31st was 22 inches.

In Nova Scotia the weather conditions were very similar to conditions in New Brunswick, the temperature and precipitation in most districts being above average. The minimum temperature of the month occurred on the 20th, when between —5° and —18° were recorded. Two gales occurred, namely, on the 21st and 24th, a velocity of 41 miles per hour being reported on the latter date. In portions of Cape Breton there was much rain, and there was little snow on the ground in these districts on the 31st. At Yarmouth the ice was 9 inches in thickness on the 31st, and at Sydney it was 6 inches.

The weather in Prince Edward Island did not differ much from average, it being fair and moderately cold during the greater portion of the month. Several snowstorms passed over the Province but they were not severe, though sufficient for good sleighing. At Charlottetown the ice was 13 inches in thickness on the 31st.—F. F. Payne.

ATMOSPHERIC PRESSURE.

Atmospheric pressure was below average in Canada except in British Columbia where it was for the most part above average. The deficiency varied from from 01 to ·10 of an inch, the greatest discrepancies occurring in Alberta, Ontario, Quebec and the Maritime Provinces.

HIGH AREAS.

There was much high pressure during the month. Ten well marked areas were traced, of which nine first appeared in the far north-west portion of the continent. No. 1 was a continuation of No. 8 on the December chart. On the morning of the 1st it was centered near Denver, Colorado, whence it moved into Ontario and became merged in No. 2. No. 2 moved over the North-west Territories and Manitoba during the 1st; it reached Lake Superior on the 2nd, and the Ottawa Valley on the morning of the 3rd; it then passed southward and became unimportant. During the presence of this area —42° was recorded in Manitoba and —38° in Northern and North-eastern Ontario No. 3 travelled between the 3rd and 6th from the North-west Territories south eastward over Southern Ontario and off the coast of the Middle Atlantic States. At first it was very pronounced, attended by excessive cold in the North-west Territories and Manitoba, but subsequently it became of much less importance. No. 4 was situated in the North-west Territories on the 5th. Afterwards it pursued almost the same course as its predecessor, and on the 8th passed off the coast. It was, however, comparativly unimportant and, except in the North-west, was not attended by very cold weather. No. 5 was centred in Alberta on the 7th, accompanied by temperatures considerably below zero. During the 8th it passed over Manitoba and between the 9th and 10th Ontario, Quebec and the Maritime Provinces. It was not attended by any particularly low temperatures after leaving Manitoba. No. 6 was situated over British Columbia on the 9th, and thence passed southward and eastward, eventually disappearing on the 14th in the neighbourhood of the Gulf of Mexico. It was of but moderate energy. No. 7 travelled between the 16th and 17th from British Columbia to Manitoba, and then lost its identity. No. 8, which was probably subsidiary to No. 7, was situated in the North Saskatchewan Valley on the morning of the 18th. By the following morning it had reached Lake Superior, whence it travelled southward over the Lower Lake Region and on the 20th passed off the Middle Atlantic Coast. This area was accompanied by a severe cold wave, and in Ontario, Quebec and the greater portion of the Maritime Provinces its presence was marked by the lowest temperatures recorded during the month. No. 9 passed over Canada between the 20th and 23rd, attaining its greatest energy when situated in the Ottawa Valley on the 22nd, Bissette at the time recording 28° below zero and Quebec 10° below. No. 10 was situated over the north-western portion of the continent on the 23rd. It was not a very energetic area and broke up before reaching the Atlantic Coast. From the 26th until the end of the month high pressure prevailed very generally on the Continent west of the Missouri and Mississippi Valleys, but there was no definite movement of any pronounced system.

LOW AREAS.

Twelve areas of low pressure were sufficiently well marked to be charted; in fact, many of the areas were of considerable importance and in several instances their paths were very erratic.

No. 1 was a very moderate area which formed in Kansas and its vicinity during the night of the 5th, and between the 6th and 8th traversed Canada from the Lakes to the Atlantic, attended by light falls of snow and rain, the rain being generally confined to southern localities. No. 2 was centered in Utah on the morning of the 7th, having seemingly passed in from the Pacific Ocean. It travelled very quickly to Lake Superior, where it was situated on the morning of the 8th, whence, continuing its rapid rate of movement, it reached the Gulf of St. Lawrence on the following morning. It brought a fall of snow over the greater portion of the North-west

Territories and Manitoba and light snow and rain, together with strong winds, in Ontario, Quebec and Maritime Provinces. No. 3 moved from Northern Texas to Lake Ontario between the 9th and 10th and then dispersed. It caused fairly heavy rain and snow in the Lake Region, accompanied by a moderate gale; also moderate snow falls as far as Western Quebec and the western portion of the Martime Provinces. No. 4 was situated on the coast of Texas on the morning of the 10th, whence it travelled north-eastward and between the 11th and 12th passed into the Lower Lake Region and the Maritime Provinces accompanied by strong winds and gales together with snow, from Ontario to the Maritime Provinces, the snowfall being particularly heavy in the latter Provinces. No. 5 was a fairly important area when over British Columbia on the 10th, but it quickly decreased and broke up completely on the 12th over Lake Superior. No. 6 was situated in British Columbia on the 12th, having apparently moved in from the Pacific. An off-shoot of this system passed into the Lake Region attended between the 14th and 15th by moderate falls of snow and rain in Ontario and Western Quebec, chiefly, however, snow. The main area meanwhile moved over the North-west States and into the Lake Region during the night of the 15th; thence down the St. Lawrence Valley to the Gulf, accompanied by gales, with snow and rain. No. 7 travelled from Texas over the Southern States to the Atlantic Coast and thence north-eastward, skirting on the 18th the Nova Scotian Coast and causing in the Maritime Provinces heavy falls of snow and rain as well as strong winds and gales. No. 8 moved over Alberta on the 19th and thence through Canada, reaching the Gulf of St. Lawrence on the night of the 21st. It was chiefly remarkable for the very rapid rise in temperature that it occasioned from Ontario to the Maritime Provinces. No. 9 travelled from Northern Alberta to Lake Superior between the 21st and 23rd, attended by a few light local snowfalls. It then passed south-eastward over the Lake Region to the New Jersey Coast, causing general and light falls of rain and snow. After reaching the Jersey Coast it again changed its course and moved north-eastward across the Maritime Provinces with greatly increasing energy, accompanied by strong winds and gales and heavy rain and snow, the snow extending as far west as Montreal. No. 10 was first recorded in the West India Islands, where in some localities it was severely felt. Its course was northward to, and over the Maritime Provinces to the Gulf of St. Lawrence, accompanied by very heavy rainfalls together with strong winds and gales. No. 11 passed into the North-west Territories on the 23rd and reached the Lower Lake Region on the 27th, where it dispersed. It was an area of very moderate energy and caused a few light local snowfalls only. No. 12 was situated in Alberta on the 27th, whence its course was first southward to Texas, thence to the Atlantic Coast and eventually, on the 31st, into the Maritime Provinces. It caused light snowfalls in Ontario and Quebec and snow and rain in the Maritime Provinces.

WINDS.

In British Columbia, on Vancouver Island and the Lower Mainland, the winds were mostly between the north-west and north-east. During the first half of the month there was considerable wind mileage with a fresh easterly gale on the 10th, but for the latter half of the month the force was almost entirely confined to light to moderate breezes.

In the North-west Territories and Manitoba the westerly direction was most in evidence and fresh to strong breezes were of very frequent occurrence, attaining to the force of a gale on several occasions.

In the Lake Region the direction was largely westerly, fresh to strong breezes were experienced on twenty-one days, and six gales were also recored, but five of these were of moderate energy only.

In the St. Lawrence Valley, the Gulf and the Maritime Provinces the westerly direction was not as pronounced as in some of the other portions of Canada but it was oftener experienced than any other. Fresh to strong breezes were of frequent occurrence, and in the St. Lawrence Region the force of the gale was attained on eight, and in the Maritime Provinces on seven occasions. Several of the gales in the Gulf of St. Lawrence were of long duration. In the Maritime Provinces, where in many locations winter navigation is pursued, the gales occurred on the 9th, 12th, 16th, 18th, 21st, 24th and 26th, but with the exception of the gale on the 24th the storms were only of moderate energy and not in all cases were they widespread. The gales on the 16th, 21st, 24th and 26th were warned, but those of the 9th, 12th and 18th were not warned.

BRIGHT SUNSHINE.

Bright sunshine was rather deficient throughout the greater portion of Canada. Battleford, Victoria and Kingston being the only stations recording an amount above average. The percentage of the possible duration ranged from 37 at Brandon, Man., to 6 at Durham, Ont.

TEMPERATURE.

Temperature was a little below average in Eastern and North-eastern Ontario, in Western Quebec, and also over the greater portion of British Columbia, and above the average over the remaining portion of Canada. In many parts of Alberta and Assiniboia the average was exceeded by from 6 to 8 degrees.

The Highest and Lowest Temperatures in each Province during January, 1901, were :

British Columbia,	59°·0 on 20th at Agassiz.	—26°·0 on 8th at Midway.
North-west Territories,	59°·0 on 13th at Pincher Creek.	—47°·5 on 1st at Muskowpetung.
Manitoba,	39°·5 on 13th at St. Albans.	—42°·0 on 2nd at Brandon.
Ontario,	50°·0 on 25th at Collingwood.	—48°·5 on 1st at White River.
Quebec,	43°·8 on 16th at Sherbrooke.	—31°·8 on 19th at Chicoutimi.
New Brunswick,	44°·0 on 22nd at Fredericton.	—26°·0 on 20th at Chatham.
Nova Scotia,	52°·6 on 24th at Truro.	—18°·2 on 20th at Parrsboro.
Prince Edward Island,	46°·0 on 24th at Charlottetown.	—15°·8 on 20th at Charlottetown.

PRECIPITATION AND DEPTH OF SNOW.

Precipitation was generally above average in the North-west Territories, also in many portions of the Maritime Provinces, but elsewhere in Canada, except very locally, it was below average. The deficiency in parts of British Columbia amounted to from one and a-half to two and a-half inches, whilst in Quebec the mean was about an inch below average. In Ontario it was as much as 2·7 inches below average at Kingston, and one inch below at Southampton. At the end of the month the ground was well covered with snow in nearly all portions of Canada, this being especially the case in the Qu'Appelle Valley, Northern and Eastern Ontario, the Province of Quebec, and the greater portion of the Maritime Provinces. Qu'Appelle reports 38 inches of snow on the ground ; White River, 24 inches ; Clontarf and Ottawa, 30 inches ; Montreal, 26 inches ; Quebec, 25 inches ; Father Point, 33 inches ; Fredericton, 22 inches ; Sussex and Point Le Preaux, 30 inches.

THICKNESS OF ICE.

North-west Territories and Manitoba.—Battleford, 30 inches ; Medicine Hat, 16 inches ; Swift Current, 26 inches ; Minnedosa, 24 inches ; Barnardo, 13 inches ; Pembina Crossing, 14 inches.

Ontario.—Port Arthur, 19·5 inches ; White River, 12 inches ; Parry Sound, 10 inches ; Southampton, 12 inches ; Port Stanley, 10 inches ; Kingston, 10 inches ; Bissette, 10 inches ; Beatrice, 10 inches ; Paris, 14 inches ; Orillia, 16 inches ; Hamilton, 10 inches ; Wyoming, 6 inches ; Clontarf, 16 inches ; Woodstock, 13 inches ; Kinmount, 16 inches.

Quebec and the Maritime Provinces.—Richmond, 30 inches ; Fredericton, 22 inches ; Parrsboro, 16 inches ; Chatham, 21 inches ; Yarmouth, 9 inches ; Sydney, 6 inches ; Charlottetown 13 inches ; Frederieton, 22 inches ; Sussex, 28 inches.

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JANUARY 1901.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	Pressure. Mean reduced.	Highest.	Lowest.	Range.	Temperature. Mean.	Difference from average.	Years observt.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of Dewpoint.	Mean relative Humidity.	Mean amount of Cloud.	No. of days completely clouded.	Direction of Wind from N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	C.	Total number of hours.	Velocity of Wind. Mean miles per hour.	Highest day's velocity.	Date and direction from.	Precipitation. Amount.	Difference from Average.	Heaviest fall in month.	Days with .01 or more	No. of Fair days.	No. of Auroras.	No. of Thunder storms.	No. of Fogs.
	° ′	° ′		in.	in.	in.	in.	°	°		°		°		°	°																	in.	in.	in.					
BRITISH COLUMBIA:																																								
Victoria	48 24	123 19	85	29·98	30·57	29·38	1·19	39·0	— 0·1	10	51·7	12	24·0		4·8	5	.....	.....	8	14	246	133	70	105	31	58	47	35	18	744	8·6	25·3	19 SE	4·15	—1·24	1·33	19	11	0	0	0
Barkerville	53 2	121 35	4180	30·03	30·72	29·09	1·63	14·9	— 3·4	13	38·0	27	—22·0		5·15·0		.....	.....			0	0	0	2	10	6	1	1	42	62	.....	13·0	13 S	4·40	— 1·80	0·60	17	13	0	0	0
Agassiz	49 14	121 31	52	.....	.....	.....	.....	35·3	+ 2·5	10	59·0	20	11·0		9·15·9		.....	.....	4	0	51	0	0	0	36	0	6	0	0	93	.....	.....	.....	6·97	—0·38	1·96	18	13	0	0	0
Port Simpson	54 34	130 26	26	29·83	30·59	28·71	1·88	34·8	+ 1·9	14	49·5	18	12·0		2·11·6		32·3	89	7	17	28	1	1	15	6	3	2	1	30	88	.....	.....	.....	7·50	—3·40	1·50	17	14	0	0	16
Spence's Bridge	50 23	120 20	770	.....	.....	.....	.....	24·3	+ 1·2	10	51·0	14	— 7·5		9·10·4		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·28	—0·77	0·15	4	21	0	0	0
Hazelmere	49 3	122 43	.....	.....	.....	.....	.....	36·3	—	8	58·0	16	0·0		9·17·0		.....	.....	.....	.....	0	41	0	13	0	8	0	0	0	62	.....	.....	.....	4·86	—	0·80	15	16	0	0	3
Revelstoke	51 0	118 46	1476	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kamloops	50 41	120 29	1193	30·09	30·61	29·35	1·26	22·8	—	8	50·7	13	—15·5		9·14·1		.....	.....	7	9	0	0	6	9	1	5	4	2	35	62	.....	N	3 SW	0·90	—	0·30	5	26	0	0	0
Princeton	49 29	120 29	1650	.....	.....	.....	.....	18·8	—	6	41·0	27	—20·5		9·16·6		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·49	—	0·10	11	20	0	0	0
Pilot Bay	49 38	116 55	.....	.....	.....	.....	.....	29·7	—	6	45·0	17	10·0		10·8·4		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3·71	—	2·02	6	25	0	0	0
Rivers Inlet	51 39	127 19	20	29·93	30·59	29·04	1·55	32·8	—	4	44·6	28	15·0		9·8·5		31·0	92	6	12	25	1	1	8	0	3	0	0	55	93	.....	.....	.....	11·12	—	2·01	16	14	0	0	0
Stuart's Lake	54 28	124 12	1800	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
French Creek	49 20	124 36	.....	.....	.....	.....	.....	35·2	—	8	48·0	26	24·0		8·10·2		..		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7·01	—	1·00	17	14	0	0	0
Glacier	51 16	117 28	4072	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Donald	51 28	117 11	2090	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Griffin Lake	50 56	118 29	1517	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Coldstream	50 14	119 15	1246	.....	.....	.....	.....	20·1	—	2	46·0	28	—15·0		5·14·0		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·75	—	0·42	2	29	0	0	0
a Kuper Island	48 58	123 38	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chilliwack	49 10	121 57	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Quatsino	50 32	128 3	.....	.....	.....	.....	.....	37·2	—	6	49·0	12	22·0		8·8·9		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14·66	—	1·65	18	13			
Midway	49 0	118 46	1800	.....	.....	.....	.....	19·0	—	6	45·0	13	—26·0		8·18·8		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·88	—	0·25	7	24	0	0	0
Enderby	50 32	119 7	1180	.....	.....	.....	.....	22·8	—	6	44·0	14	—29·0		9·15·7		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·92	—	0·29	9	27	0	0	0
Nicola Lake	50 9	120 39	2120	.....	.....	.....	.....	20·8	—	6	49·0	28	—24·0		9·13·6		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·80	—0·27	0·20	8	19	0	0	0
West Kootenay	49 20	117 50	.....	.....	.....	.....	.....	23·2	—	6	47·0	13	—11·0		10·14·0		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3·28	—	0·55	13	18	0	0	2
Garry Point	49 21	123 17	.....	.....	.....	.....	.....	34·6	—	5	49·0	13	5·0		9·11·4		.....	.....	.....	.....	2	6	43	5	5	0	5	14	13	93	9·7	24·0	10 E	6·12	—	1·03	18	13	0	0	2
Tobacco Plains	49 1	115 5	2300	.....	.....	.....	.....	21·1	—	5	48·0	27	—19·0		10·13·0		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·85	—	0·71	10	21	0	0	2
Vancouver	49 18	123 4	195	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
New Westminster	49 13	122 54	330	30·01	30·62	29·44	1·18	33·1	—	8	46·0	12	9·5		9·8·4		.....	.....	8	18	1	8	24	1	2	3	3	0	20	62	.....	9·5	3 E	8·97	—	1·44	22	8	0	0	3
a Ladner	49 5	123 4	.....	30·00	30·55	29·42	1·14	33·3	—	2	50·0	20	12·0		4·10·7		.....	.....	.....	.....	3	5	12	4	0	1	0	1	0	26	.....	.....	.....	2·77	—	0·80	10	21	0	0	0
N. Nicomen	49 12	122 2	59	.....	.....	.....	.....	35·5	—	8	50·0	12	8·0		9·10·4		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8·26	—	2·32	17	13	0	0	0
Quesnelle	52 59	122 30	1700	.....	.....	.....	.....	20·7	—	5	57·0	13	—21·0		7·24·9		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·10	—	0·40	3	28	0	0	0
Clayoquot	49 11	125 47	.....	.....	.....	.....	.....	40·2	—	2	55·0	20	26·0		8·13·1		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11·50	—	2·29	21	10	0	0	0
Cape Scott	50 48	128 27	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mussett	53 58	132 9	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Quesnelle Forks	52 45	121 55	.....	.....	.....	.....	.....	18·4	—	4	44·0	13	—20·0		5·17·0		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·92	—	0·60	14	17	0	0	0
Bella Coola	52 20	126 54	15†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cranbrook	49 30	115 50	40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nelson	49 29	117 21	.....	.....	.....	.....	.....	27·3	—	4	46·0	14	— 2·0		10·11·1		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·14	—	0·65	14	17	0	0	0
Okanagan Mission	49 52	119 29	.....	.....	.....	.....	.....	23·3	—	3	48·0	14	— 9·5		9·15·2		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Matsqui	49 7	122 16	.....	.....	.....	.....	.....	33·6	—	2	49·5	17	4·0		8·11·9		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5·97	—	1·13	17	14	0	0	0
Rossland	49 6	117 49	3400	30·08	30·48	29·50	0·98	24·2	—	1	46·1	16	0·0		9·13·0		.....	.....	.....	.....	0	4	0	0	0	0	9	4	5	1	23	.....	.....	.....	6·32	—	1·23	18	13	0	0	4
Alberni	49 30	124 50	300	.....	.....	.....	.....	33·6	—	1	45·1	27	21·9		8·7·1		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12·01	—	1·25	22	9	0	0	0
N.-W. TERRITORIES:																																								
Medicine Hat	50 1	110 37	2161	30·10	30·8	29·41	1·41	15·4	+ 7·1	17	44·8	17	—32·0		9·19·0		.....	.....	6	3	9	1	0	4	18	2	10	5	13	62	.....	30·0	16 S	1·68	+1·71	0·60	8	18	0	0	0
Edmonton	53 33	113 30	2158	29·99	30·92	29·21	1·71	13·0	— 8·7	18	45·0	17	—29·0		4·20·4		.....	.....	4	2	2	1	5	1	1	0	8	2	42	62	.....	13·7	28 NW	0·46	—0·22	0·10	7	24	0	0	0
Swift Current	50 20	107 45	2439	30·13	30·94	29·37	1·57	9·3	— 3·3	15	42·0	13	—29·0		3·17·3		.....	.....	4	0	17	41	23	23	116	148	244	91	38	744	12·0	23·0	13 W	1·32	+0·68	0·6	10	19	2	0	0
Qu'Appelle	50 30	103 47	2115	30·10	30·95	29·28	1·67	2·0	— 3·9	18	35·0	13	—33·0		1·16·0		.....	.....	6	4	1	5	3	3	13	13	6	16	2	62	.....	24·6	31 NW	2·38	+1·78	1·20	8	22	0	0	2
Calgary	51 2	114 2	3380	30·04	30·78	29·29	1·49	16·6	— 6·1	17	38·0	13	—35·0		9·17·2		.....	.....	4	2	2	1	3	3	3	8	17	13	12	62	.....	.....	.....	0·40	—0·13	0·15	4	28	0	0	0
Prince Albert	53 10	106 6	1402	30·08	30·97	29·41	1·56	— 4·2	2·2	16	29·0	25	—46·5		1·20·2		.....	.....	6	10	2	0	1	1	0	0	0	3	56	62	.....	.....	.....	0·23	—0·64	0·10	4	26	1	0	0
Battleford	52 41	108 20	1620	30·15	31·11	29·35	1·76	— 1·0	+ 1·6	10	30·0	27	—37·0		4·18·7		.....	.....	5	3	13	3	37	160	12	3	129	88	299	744	3·6	13·3	18 SE	0·85	+0·45	0·32	8	23	4	0	0
Oonikup	53 30	101 20	.....	.....	.....	.....	.....	— 7·4	+ 1·5	10	25·5	26	—40·0		3·18·5		.....	.....	.....	.....	10	5	3	3	4	4	16	8	9	62	.....	.....	.....	.....	.....	.....	.....	.....	2	0	0
a Banff	51 10	115 35	4542	30·15	30·71	29·34	1·37	14·3	—	6	38·0	13	—21·0		3·14·5		.....	.....	5	3	2	4	0	1	4	21	6	4	20	62	...	20·0	10 SW	0·88	—0·31	0·25	14	16	1	0	0
Calgary (2)	51 4	114 4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chaplin	50 27	106 40	2202	.....	.....	.....	.....	— 0·1	+ 0·6	15	37·0	14	—32·0		8·22·0		.....	.....	.....	.....	0	0	9	3	0	7	12	17	14	62	.....	.....	.....	0·70	+0·11	0·40	5	26	0	0	0
Moose Jaw	50 21	105 35	1745	.....	.....	.....	.....	— 2·6	—	7	38·0	13	—35·0		9·17·2		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Regina	50 27	104 37	1885	.....	.....	.....	.....	— 0·6	+ 4·8	16	36·0	13	—42·0		2·20·6		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·40	+0·06	0·13	7	23	0	0	0

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JANUARY, 1901.

a. Barometer not reduced to Sea Level. *Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	PRESSURE. Mean reduced	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observed.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of Dewpoint.	Mean relative Humidity.	Mean amount of Cloud.	No. of day completely cloudeds.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of hours.	VELOCITY OF WIND Mean miles per hour.	Highest day's velocity.	Date and direction from	PRECIPITATION Amount.	Difference from Average.	No. of Fair days	No. of Auroras.	No. of Thund. storms	No. of Fogs.
N.-W. TERRITORIES—*Con.*																																						
Indian Head	50 28	103 40	1924					− 0·5	− 0·8	12	35·0	13	−37·0	13	1·18·2					1	12	7	3	16	19	2	33	0	93				1·50	+ 0·40	0	80	3	2	0	0
Cannington Manor	49 43	102 2						− 1·8			6·40·0	13	−37·0	13	1·14·8					10	4	3	12	1	11	10	8	3	62				1·10	− 0·40	4	21	0	0	1
Macleod	49 44	113 24						13·4			5·51·0	18	−30·0	5·16·4						5	6	3	6	1	5	54	14	0	93				0·26	− 0·10	25	0	0	0
Gatesgarth	50 20	105 0						3·9			5·58·0	13	−34·0	2·22·7						0	1	0	6	2	6	7	9	0	31				—	—	1	0	0	0
Pincher Creek	49 30	113 0	3750					22·2			6·59·0	13	−30·0	5·23·1																								
Grenfell	50 23	102 53	1957					4·1			1·35·0	18	−35·1	1 —				2	2	4	6	1	4	8	38	5	21	0	87				1·70	− 1·00	3	26	0	0	0
Kneehill	51 55	113 0						12·1			5·52·7	13	−40·0	8·24·2																								
Muskowpetung	50 15	104 15						−1·1			3·37·0	13	−47·5	1·24·4						5	1	4	8	9	2	0	15	18	62				1·00	− 0·40	5	26	5	0	0
Fort Simpson	61 52	121 43																																				
Alameda	49 15	102 17																																				
Duck Lake	52 54	106 9																																				
Red Deer	52 15	113 30						17·3			3·45·7	17	−27·1	5·15·0																		0·33	— 0·10	9	29	5	0	0
Saskatoon	52 15	106 30						−1·0			1·38·0	20	−35·0	2·22·7																								
Crane Lake	50 0	109 50						12·7			3·43·0	21	−28·0	8·16·5						2	2	1	2	8	15	22	10	0	62				1·25	— 0·30	10	18	0	0	0
Tagish (Yukon)	60 17	134 15																																				
Estevan	49 12	103 4						−6·4			1·25·0	20	−34·0	3·16·4																								
Moosomin	50 0	101 37						−1·5			1·35·0	13	−39·9	1·19·6																		1·22	— 0·55	6	25	0	0	0
Athabasca Landing	54 43	113 17									3·35·0	14	−47·0	9 —																								
Calgary (Exp. Station)								−15·2			1·49·9	13	−44·9	5·22·7																		0·32	— 0·10	4	27	0	0	0
Crescent Lake								−7·4			1·30·0	13	−41·0	2·20·1																		1·33	— 0·58	10	21	0	0	0
MANITOBA :																																						
Minnedosa	50 10	99 48	1690	30·14	30·93	29·45	1·48	− 0·6	+ 4·3	18	37·0	13	−41·3	2·20·0				4	0	0	3	5	4	2	4	18	11	15	62		20·8	31 NW	0·90	+ 0·10	0·26	7	22	0	0	0
Winnipeg	49 53	97 7	760	30·13	30·91	29·41	1·50	+ 3·5	+ 2·1	28	51·0	13	−36·8	2·22·1				5	5	7	2	2	9	9	7	12	13	1	62		31·4	16 NW	0·81	— 0·07	0·25	13	18	0	0	0
*a*St. Alban's (Aweme)	49 43	99 53		28·72	29·42	28·05	1·37	+ 1·3	+ 3·1	14	39·5	13	−36·0	2·20·6																				0·82	+ 0·17	0·21	15	18	3	0	0
*Fort Osborne	49 53	97 11						+ 2·0	+ 0·5	14	28·0	13	−33·0	2 —																								
Portage la Prairie	49 57	98 1	830					+ 1·2	+ 1·5	12	38·0	13	−31·0	2·17·1																								
Brandon	49 51	99 57	1176					− 3·4	+ 0·7	13	38·1	13	−42·0	2·22·9				4	3	1	18	4	2	0	11	38	16	3	93	II	III	15 W	—	—	—	1	0	0	0
Channel Island	52 18	97 23	710					− 6·5	+ 1·9	12	21·0	13	−30·0	2·15·8				4	0	11	4	4	3	26	2	21	22	0	93	III	V	16 NW	1·70	1·29	0·40	7	24	0	0	0
Elkhorn	49 58	101 16						+ 1·9	+ 3·3	10	39·0	14	−36·5	2·17·9																								
Stony Mountain	50 5	97 12	803	29·99	30·72	29·23	1·49	− 2·1	+ 2·9	30	38·0	14	−35·0	2·18·0						0	5	1	12	10	13	7	14	0	62	II	V	25 SE	1·05	+ 0·68	0·30	11	19	3	0	1
*a*Barnardo	50 59	101 20		26·83	27·47	26·26	1·19	+ 6·4	+ 1·1	12	51·0	14	−41·0	2·20·1				5	4														1·45	+ 0·87	0·49	11	19	3	0	0
Treherne	49 38	98 42						2·4	—		6·37·0	13	−32·0	1·17·8						0	0	3	0	1	9	11	7	0	31				0·68	—	0·15	4	27	0	0	0
Roschank	49 22	98 6																																				
Hillview	49 54	100 3						− 3·8	+ 2·9	14	35·0	13	−40·0	2·16·2				3	1	1	11	8	6	4	8	10	15	0	93				1·50	+ 1·50	0·66	4	27	1	0	0
Roseberry	49 14	99 20																																				
Pipestone	49 30	100 58	1400					− 1·3	—		2·35·0	13	−37·0	2·17·0																								
Bowsman	52 15	121 0	1060					− 2·7	—		1·31·0	25	−42·0	4·22·5						7	4	0	1	0	12	1	3	3	31				1·30	— 0·35	9	18	5	0	0
ONTARIO :																																						
Haileybury	47 20	79 39	687	30·00	30·76	29·08	1·68	5·7			7·38·6	16	−29·8	19·26·0				7	13	0	2	0	6	12	2	12	18	10	62	I	IV	17 NW	2·36	— 0·40	14	14	2	0	1
Sudbury	46 27	80 55																																				
Savanne	48 55	80 18	1506																																			
*Missanabie	48 21	83 28						4·1	− 0·1	10	30·0	8	−38·0	18 —						22	0	10	8	5	6	28	11	3	93				2·88	0·28	1·40	11	20	0	0	0
*Schreiber	48 50	87 15						5·8			8·33·0	14	−26·0	19 —						49	0	0	0	3	0	2	2	37	93				1·50	— 0·60	5	19	0	0	0
Barrie	44 23	79 41	839																																			
Erasmus	43 58	80 22						17·6			6·33·0	21	−12·5	19·13·6																		2·36	— 0·70	19	5	0	0	5
Bloomfield	43 59	77 21						19·6			6·40·0	16-21	−12·0	19·14·4																		1·75	— 0·40	11	20	0	0	0
Calvin	46 15	78 48						7·7			6·38·0	21	−30·8	3·19·4																		2·27	— 0·80	13	18	0	0	0
Parry Sound	45 15	89 0	636	29·99	30·77	29·05	1·72	16·1	+ 1·9	25	41·2	21	−23·4	19·21·8				7	9	45	16	167	117	22	53	168	121	35	744	8·9	20·8	16 S W	3·93	−0·15	0·54	23	25	0	0	0
Saugeen	44 30	81 21	650	29·99	30·72	29·19	1·53	22·7	+ 1·9	25	43·8	21	− 3·0	19·22·7						13	3	10	4	12	3	6	3	8	62	6·6	28·0	16 SW	3·00	−1·05	0·37	28	0	0	0	0
Owen Sound	44 34	80 55	597					22·0	+ 2·7	21	42·0	20	− 7·0	19·12·8						8	10	2	3	15	34	4	17	0	93				4·45	−0·40	0·70	19	12	0	0	0
Uplands	45 28	79 25						11·9	+ 1·4	13	37·3	21	−27·7	3·21·9						1	4	0	4	0	12	3	7	0	31				2·92	−1·42	0·40	14	17	0	0	0
*a*Durham	44 10	80 56		28·62	29·33	27·93	1·40	18·2	− 0·4	18	40·0	20	−15·0	19·14·4				9	18	4	1	0	10	18	30	2	27	1	93	III	V	16 SW	6·60	+ 1·62	1·00	16	4	0	0	2
Toronto	43 39	79 17	350	30·01	30·77	29·25	1·52	23·9	+ 1·4	66	45·4	8	−10·9	19·14·9	21·2	82	8	11		92	47	33	29	60	142	136	164	41	744	11·4	22·6	16 SW	2·46	−0·46	0·66	16	4	0	0	0
Welland	42 50	79 17						24·4	+ 3·5	14	45·0	9	− 6·0	20 14·5																			3·14	−0·57	0·44	14	15	0	0	1
Peterborough	44 17	78 19	722					17·8	+ 1·1	29	41·0	9	−19·0	3·22·3																			2·57	−0·09	0·49	15	16	0	0	0

	° ′	° ′		in.	in.	in.	in.	in.	°	°	°																										in.	in.	in.				
ONTARIO—(*Continued.*)																																											
Lindsay	44 20	78 45	872	29·98	30·77	29·26	1·51		17·5	+ 2·6	20·39·6		16	−21·3		3 17·7			8	13	1	2	11	8	10	14	13	21	13	93	II	III	16 NW	2·51	−0·84	0·60	13·18	0	0	1
Deseronto	44 11	77 4	264						17·4	+ 0·1	18·43·4		21	−16·5		19 20·6			5	3	1	5	8	18	5	23	25	7	1	93	9 0	17·5	21 SW	1·91	−1·57	0·55	8·15	0	0	0
Lakefield	44 25	78 15							14·4	− 0·0	15·40·0		9	−20·0		19 18·2																				4·65	+1·93	1·60	8·23	0	0	0
Ridgetown	42 26	81 55							29·7	− 0·3	31·45·0		10	− 8·0		3 16·0																				2·16	−0·66	0·40	15·16	0	0	2
Kingston	44 13	76 29	285	29·99	30·79	29·20	1·59		19·6	+ 1·6	27·40·0		21	−13·3		19 16·7			7	11	10	10	3	2	7	6	11	10	3	62		21·3	2 W	1·33	−2·15	0·30	14·16	0	0	0
Montarf	45 23	77 9							11·3	− 1·2	14·41·0		16	−26·0		3 21·0																				2·73	−0·26	1·40	6·22	0	0	0
Bancroft	45 1	77 50																																										
Ottawa	45 26	75 42	294	29·97	30·90	29·10	1·80		11·7	+ 1·2	18·10·0		21	−24·6		20 19·8			6	10	8	4	15	2	3	9	18	3	0	62		IV	13 W	3·31	+0·82	0·90	9·17	0	0	0
Bissett	46 12	77 55	557	30·04	30·87	29·15	1·72		5·0	− 1·6	24·38·9		16	−38·0		3 25·4			6	9	1	2	8	0	0	0	5	11	35	62		13·3	16 NE	1·83	−0·49	0·37	17·14	0	0	0
Mattawa	46 16	78 41																																										
Carter	46 46	80 51							3·6	+ 0·8	10·32·0		16	−30·0		19 —			9	3	20	13	12	0	24	12	0	93				2·50	+0·26	0·80	6·25	0	0	0
St. Anne's	43 6	79 32																																									
Stouffville	43 56	79 11							19·6		6·40·0		17	−16·0		19 20·0			17	8	1	28	3	11	13	12	0	93				3·36		0·51	17·14	0	0	2
Sarnia	42 59	82 29	586						23·9	—	6·43·0		20	−10·0		3 —			15	2	1	7	16	9	9	3	33	93				1·35	−0·58	0·40	5·26	0	0	0
Millbrook	44 8	78 32																																									
Stratford	43 23	81 10	1191	30·04	30·76	29·35	1·41		20·9	+ 0·8	30·40·2		16	−10·4		19 12·7					2	1	5	5	2	19	9	13	6	62				2·24	−0·76	0·40	13·19	0	0	3
Luck now	43 56	81 30							22·5	+ 1·0	14·42·1		21	− 5·5		19 12·5																					3·11	−1·22	0·50	17·14	0	0	0
*Cottam	42 7	82 45							26·0	− 0·4	12·48·0		8	− 3·0		3 —			9	3	0	5	14	12	30	20	0	93				2·24	−0·21	0·50	8·23	0	0	0
Brantford	43 10	80 21	750						22·1	− 1·1	19·43·0		15	−10·0		18 15·4																					2·02	−0·07	0·60	9·22	0	0	0
Conestogo	43 56	80 39																																									
*Otonabee	44 20	78 18							19·2	—	5·40·0		16	−15·0		19 —			5	1	23	5	0	19	15	25	0	93				3·65	—	0·80	10·21	0	0	2
Windsor	42 19	83 2							25·1	+ 2·0	25·45·0		21	− 1·9		19 13·5																					2·42	+0·05	0·60	10·16	0	0	0
Alton	43 51	80 5	1200						20·0	+ 1·7	13·40·0		9	−21·0		19 18·0			6	4	9	4	9	2	11	23	26	9	0	93	II	IV	20 S	1·75	−0·90	0·40	17·13	0	0	4
Guelph	43 33	80 16							20·7	+ 3·9	13·41·0		21	−14·0		19 16·3					1	2	2	0	5	3	13	3	0	93				2·41	+0·11	0·85	11·14	0	0	0
*North Bruce	44 23	81 25							23·2	+ 0·9	12·39·0		21	− 2·0		19 —					2	14	4	5	12	25	21	10	0	93				3·38	−0·11	0·40	20·11	0	0	1
Collingwood	44 30	80 15							21·0	+ 1·3	10·44·0		21	− 6·0		20 14·6																												
Collingwood (2)	44 2	80 15							16·5	—	6·50·0		25	− 9·0		19 23·8																												7
Bognor	44 40	80 50																																									
Whiteside	45 0	79 30							17·0	+ 3·5	17·42·0		21	−22·5		3 17·7																					1·70	−2·54	0·60	4·25	0	0	0
Sprucedale	45 30	79 40							14·1	+ 2·9	15·40·0		21	−35·0		3 19·4																					2·15	−1·43	0·80	6·24	0	0	0
Orillia	44 36	79 25							18·3	+ 2·2	10·41·0		20	−21·0		18 18·8																					2·98	+0·33	0·75	17·14	0	0	0
Coldwater	44 38	79 40							16·3	− 1·1	15·44·0		20	−22·5		3 16·9					2	4	2	11	1	16	4	20	2	63				2·82	−1·51	0·65	18·13	1	0	0
Beatrice	45 8	79 20							14·7	− 1·4	24·41·0		21	−23·0		3 19·9			6	10	4	0	0	15	15	7	4	24	24	93	II	IV	16 SW	4·11	+0·57	0·90	12·18	0	0	0
Gravenhurst	44 55	79 20	770						16·2	+ 1·3	30·41·0		21	−27·5		3 20·3			6	8	15	2	13	16	15	5	9	11	7	93				2·91	−1·09	0·50	16·14	0	0	0
Haliburton	45 1	78 28							13·0	− 1·1	12·40·0		21	−29·0		3 18·6																					3·09	+0·79	0·80	13·18	0	0	0
*Point Clark	44 5	81 44	595						25·2	− 0·7	28·41·0		20	− 3·0		19 —			4	0	15	4	2	5	25	27	14	1	0	93	IV	VI	28 SW	1·95	−0·89	0·40	7·24	0	0	0
Birnam	43 2	81 55							22·9	+ 2·3	18·43·2		20	− 7·0		20 11·4					2	0	1	6	14	10	12	15	2	62				2·57	−0·58	0·42	10·16	0	0	2
London	42 59	81 12	808	30·02	30·79	29·23	1·40		23·0	+ 1·0	17·43·0		20	− 6·0		19 14·7	20·2	84	6	5	3	9	1	2	3	25	22	27	0	93	I	III	20 S	2·66	−0·56	0·41	14·8	0	0	2
Port Stanley	42 40	81 13	59	30·04	30·75	29·32	1·43		29·3	+ 1·1	27·43·4		9	− 5·4		6 14·5			8	15	17	29	32	09	8	196	237	148	8	744	12·9			2·96	−0·63	0·76	22·7	0	0	1
Woodstock	43 8	80 47	980	30 01	30 75	29·35	1·40		23·0	+ 2·4	20·42·2		8	− 6·0		19 14·4	20·2	89	7	7	86	25	35	10	168	52	226	100	42	744	11·7	29·0	16 W	2·11	−0·42	0·54	10·21	0	0	0
Port Dover	42 47	80 13	635						29·0	+ 6·8	25·47·8		21	− 0·6		3 14·2																					2·66	−0·38	0·48	10·21	0	0	0
Pelee Island	41 50	82 38							26·2	+ 1·7	22·46·0		8	− 6·5		19 9·3																					1·12	−1·58	0·40	7·24	0	0	0
St. George	43 14	80 12	722						25·2	+ 3·6	15·43·0		16	− 9·0		19 13·1			7	11	16	10	0	2	1	12	41	11	0	93				3·05	+0·27	0·50	12·19	0	0	0
Paris	43 12	80 25	840						22·7	+ 0·7	11·43·0		16	−14·0		19 27·0																					1·01	−1·83	0·40	6·25	0	0	0
St. Mary's	43 18	81 10	1040																																								
*Biscotasing	47 3	82 8							4·6	—	7·30·0		8	−33·0		25 —					18	8	1	0	3	8	43	12	93													0	0	0
White River	48 35	85 16	1252	30 06	30 84	29·00	1·84		1·8	+ 0·5	12·32·0		8	−18·5		3 32·9			6	12	64	10	37	35	28	84	45	78	363	744	2 4	15·0	8 S	1·73	+0·04	0·76	13·15	1	0	0
Port Arthur	48 27	89 12	644	30 02	30 70	29 11	1·59		7·6	+ 3·4	20·36·0		23	−24·0		2 22·12			6	8	5	34	13	29	28	83	320	169	39	720	5·4	11·6	8 W	0·84	+0·62	0·34	7·23	0	0	0
Stony Creek	43 33	79 45	292						26·5	+ 3·4	7·48·0		21	− 8·0		19 13·7			7	10	5	3	6	5	5	17	26	12	14	93	III	VII	12 W	3·25	−0·30	1·39	9·22	0	0	2
Agincourt	43 47	79 16							19·2	—	5·40·0		21	−13·5		20 17·3																					1·80	—	0·50	11·20	0	0	0
Pickering	43 39	79 4																																									
Hamilton	43 16	79 54	302						24·9	+ 1·7	24·44·8		15	− 7·0		18 13·3																					2·15	−1·00	0·60	9·21	0	0	0
Port Hope	43 16	78 20							20·0	—	4·41·0		21	−13·0		18 17·4																					2·80	−1·25	0·70	14·17	0	0	1
Kinmount	44 42	78 42							13·6	—	4·39·0		21	−27·0		3 18·4																					2·65	—	0·68	13·18	0	0	0
Cockburn Island	45 57	83 18	610						17·4	—	2·38·0		16	− 7·0		19 14·1			7	2	8	6	11	3	10	14	1	62				1·10	—	0·40	5·26	0	0	0
Chatham	42 23	82 12	595																																							
Dalhousie Mills	45 20	74 29							13·4	—	2·31·0		10	− 7·0		24 14·7																											
Meaford	44 37	80 37							22·7	—	2·41·0		9-21	− 5·0		19 12·6																					4·38	—	0·62	16·15	0	0	0
Rathven	42 3	82 41																																									
Listowel	43 44	80 58							19·2	—	6·40·0		20	−11·0		17 15·0																					3·40	—	0·70	11·20	0	0	0
Bruce Mines	46 18	83 55							13·8	—	2·37·0		20	−28·0		19 19·0																					1·60	—	0·60	6·25	0	0	0
Rat Portage	49 48	94 32	1087						8·7	—	2·32·0		2	−20·0		17 16·8																					2·25	—	0·80	5·26	0	0	0
Dunnville	42 54	79 36									4·0·0		20	− 2·0		18 —																					1·53	—	0·63	4·27	0	0	1
*Heron Bay	48 40	87 10							6·7	+ 3·4	11·33·0		8	−36·0		19 —					18	1	0	0	2	13	5	0	24	93				3·33	+0·50	1·00	13·18	0	0	0
Sturgeon Falls	46 16	79 54							10·1	—	1·36·0		21	−25·5		19 19·4			87		12	6	17	7	8	4	8	6	1	69				2·07	—	0·80	6·17	0	0	0
QUEBEC:—																																										
Montreal	45 30	73 35	187						12·7	+ 0·4	27·39·6		21	−16·7		19 15·3			86		136	55	49	22	53	54	306	60	9	744	16·6	30·1	5 W	2·98	−0·75	0·99	16·12	0	0	3
Richmond	45 40	72 8	435						10·4	− 1·4	23·41·0		22	−30·5		20 25·0																					2·10	−1·02	0·60	8·23	0	0	0
Brome	45 10	72 36							12·3	− 0·4	21·40·0		21	−30·0		20 16·4																					2·40	+0·33	1·00	10·14	0	0	0
Quebec	46 48	71 13	296	29·96	30·68	28·86	1·82		10·7	+ 1·5	27·36·0		17	−22·0		24 16·3			6	12	29	210	8	0	3	298	142	57	2	744	16·3	35·0	11 NE	2·78	−1·23	0·42	17·12	1	0	0
Chicoutimi	48 25	71 5	150						3·9	+ 1·6	19·33·1		17	−31·8		19 26·2			7	6	0	21	0	7	0	8	0	44	13	93	III	VII	16 NE	1·01	−0·55	0·34	12·19	1	0	0
Father Point	48 31	68 19	20	29·96	30·50	28·78	1·72		10·7	+ 2·7	24·33·0		17	−22·1		16 17·0			8	15	79	45	114	48	33	107	232	31	33	744	18·0	40·3	26 NE	1·64	−1·21	0·68	20·11	0	0	0
*Cape Chatte	49 6	66 45							10·9	− 0·5	12·33·0		27	−16·0		19 —					4	1	11	0	1	10	30	2	34	93													

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JANUARY, 1901.

a. Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	Pressure. Mean reduced.	Highest.	Lowest.	Range.	Temperature. Mean.	Difference from average.	Years observed.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of Dewpoint.	Mean relative Humidity.	Mean amount of Cloud.	No. of days completely clouded.	Direction of Wind from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of hours.	Velocity of Wind. Mean miles per hour.	Highest day's velocity.	Date and direction from	Precipitation. Amount.	Difference from Average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days.	No. of Auroræ.	No. of Thund. storms	No. of Fogs.
QUEBEC—(*Continued.*)	° ′	° ′		in.	in.	in.	in.																																
*Bicquette	48 25	68 53	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
*Cape Magdalen	49 16	65 20	....	....	....	....	....	11·3	+ 1·2	18	35·0	28	−15·0	19	—	....	....	....	....	0	0	6	8	17	0	0	47	15	93	....	....	....	2·02	−0·24	0·80	9	22	0	0	0
Anticosti, W. Pt.	49 52	61 32	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Anticosti, S.-W. Point.	49 24	63 35	30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Abitibi	48 43	79 22	....	....	....	....	....	3·4	—	5	34·0	16	−38·0	19	—	....	....	....	6	8	6	0	5	1	13	2	4	16	46	93	H	VI	17 NW	1·10	—	0·40	4	27	0	0	0
*Anticosti, E. Pt.	49 5	61 42	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Bird Rocks	47 51	61 8	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sherbrooke	45 21	71 55	....	....	....	....	....	12·6	— 1·4	23	8·0	16	−27·5	20	27·6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3·88	— 2·50	17·14	6	0	0	0
Percé	48 31	64 12	50	....	....	....	....	....	....	35	·2	28	−21·2	21	—	....	....	....	....	....	6	8	0	0	6	2	6	3	0	31	....	....	....	4·95	— 2·57	13·18	0	0	0	0
St. Agathe des Monts	....	....	....	....	....	....	....	7·9	—	23	44·0	21	−27·0	19	18·0	....	....	....	....	....	0	6	6	4	1	1	10	9	0	31	....	....	....	0·62	— 0·50	2·28	0	0	3	0	0
(*a*) St. Anne de la Pocatière	47 23	70 2	....	29·69	30·35	28·63	1·72	10·4	—	23	32·0	17	−20·2	21	15·8	6·0	71	6	8	0	17	0	0	2	23	8	3	9	62	H	V	17 SW	2·65	— 0·90	16·15	0	0	0	0
NEW BRUNSWICK:																																							
Fredericton	45 57	66 36	164	29·94	30·57	28·74	1·83	14·4	+ 2·1	28	44·0	22	−20·0	20	21·3	11·5	79	6	12	11	12	5	0	1	6	25	20	13	93	7·5	15·5	19 NW	3·81	−0·69	1·06	8	19	0	0	0
Chatham	47 3	65 29	21	29·89	30·50	28·73	1·77	13·2	+ 2·6	37	0	9	−26·0	20	24·8	....	....	....	5	8	1	8	10	0	0	4	19	6	14	62	.....	13·0	1 N	4·58	−0·99	1·60	15	17	0	0	0
Grand Manan	44 47	66 46	49	29·91	30·58	28·81	1·77	23·1	− 0·5	17	42·0	17	−10·5	20	15·6	....	....	....	7	10	12	2	11	0	1	2	27	5	2	62	.....	36·7	26 N	7·64	+2·73	2·57	15	10	0	0	0
*Point Lepreaux	45 4	66 28	30	....	....	....	....	21·3	+ 0·1	22	41·0	0	−16·0	20	—	....	....	....	6	8	15	13	6	7	0	6	7	26	1	81	H	IV	20 SW	6·23	+ 1·46	1·80	12	19	0	0	0
St. John	45 17	66 4	70	29·94	30·57	28·80	1·77	19·6	− 0·9	18	42·5	17	−14·8	20	1·98	17·5	76	7	13	93	221	15	37	10	59	30	241	38	744	12·2	24	26 NE	4·75	0·99	1·56	17	11	0	0	0
Dalhousie	48 34	66 22	30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
St. Stephen	45 11	67 16	35	....	....	....	....	14·8	— 3·4	0	6	21	−22·0	20	17·4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4·62	— 1·80	8·23	0	0	1	0	0
Moncton	46 9	64 45	....	....	....	....	....	15·4	— 3·4	2	5	17	−18·5	19	19·6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4·18	— 1·88	8·23	0	0	1	0	0
Sussex	45 38	65 38	....	....	....	....	....	14·1	— 3·4	0	5	17	−20·0	20	17·0	....	....	....	....	....	0	8	2	0	0	4	6	8	3	31	....	....	....	5·55	— 1·64	13·18	0	0	0	0	0
Bathurst	47 39	65 42	....	29·96	30·59	28·76	1·83	13·3	+ 4·0	25	40·0	25	−16·0	20	22·8	....	....	....	....	....	3	11	6	9	1	2	5	26	30	93	H	V	12 NE	2·75	−0·24	0·90	6	24	0	0	0
NOVA SCOTIA:																																							
Halifax	44 39	63 36	97	29·89	30·58	28·83	1·75	24·3	+ 1·1	27	44·1	17	− 8·0	20	16·2	....	....	....	7	14	282	56	69	33	38	19	136	68	43	744	10·7	22·2	12 NE	6·74	0·97	1·70	18	13	0	0	1
Sydney	46 10	60 10	55	29·87	30·61	28·58	2·03	23·4	+ 2·2	28	49·5	18	− 5·0	20	16·6	....	....	....	8	22	6	46	59	34	0	110	87	205	203	744	5·1	15·0	31 E	6·98	1·88	1·18	13	18	0	0	0
Truro	45 22	63 18	73	29·88	30·57	28·84	1·73	20·1	+ 0·8	25	52·6	24	−14·0	20	20·1	....	....	....	8	12	10	20	8	6	11	9	23	4	2	93	H	III	12 NE	5·13	+ 0·34	1·22	18	9	1	0	4
Yarmouth	43 50	66 2	65	29·90	30·55	28·84	1·71	26·3	− 0·4	21	42·7	17	− 0·5	20	13·8	....	....	....	8	12	86	118	125	41	6	82	45	231	7	744	12·6	21·3	12 E	5·06	−0·35	1·94	4	5	0	0	3
Pictou	45 42	62 41	....	....	....	....	....	18·9	− 1·3	23	44·0	17	−16·0	20	13·2	....	....	....	6	12	1	11	8	5	8	12	11	27	10	93	H	VI	3 NW	5·54	+ 1·04	1·40	7	24	0	0	1
Port Hastings	45 39	61 22	45	....	....	....	....	19·0	− 3·0	16	30·0	21	−10·0	20	10·6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	9·16	+ 5·99	1·42	7	24	0	0	4
*Whitehead	45 13	61 8	20	....	....	....	....	27·4	+ 2·6	17	41·0	18	− 5·0	20	—	....	....	....	....	....	8	11	15	8	4	12	11	24	0	93	....	....	....	4·98	+ 1·50	0·91	8	23	0	0	0
*Sable Island, E. Pt	43 58	59 46	25	....	....	....	....	31·4	+ 0·6	16	47·0	18	− 5·0	20	—	....	....	....	....	....	12	10	3	21	5	7	4	26	5	93	....	....	....	3·24	−0·54	0·70	7	19	0	0	0
Guysborough	45 57	60 6	25	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
*Sable Island, M. station	44 28	64 25	40	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Parrsboro'	45 23	64 19	40	....	....	....	....	20·3	— 4·4	8	3	25	−18·2	20	20·8	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5·08	— 0·82	14·17	0	0	0	0	0
Wolfville	45 7	64 20	....	29·3	— 3·5	0	6	25	− 9·0	20	17·0	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5·84	— 2·30	10·21	0	0	0	0	0
Bridgetown	44 49	65 16	....	21·7	— 1·4	5	0	18	− 7·0	20	12·0	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5·38	— 1·80	13·18	0	0	0	0	0
P. E. ISLAND:																																							
Charlottetown	46 14	63 10	38	29·88	30·59	28·69	1·90	19·2	+ 2·1	26	46·0	24	−15·8	20	17·3	....	....	....	6	12	43	118	54	20	55	59	82	181	132	744	8·3	15·4	22 N	2·82	−1·14	0·66	13	15	0	0	1
Summerside	46 18	63 51	....	....	....	....	....	17·7	— 3·4	16	0	25	−15·0	20	15·0	....	....	....	....	....	6	14	4	7	4	0	8	19	0	62	....	.....	...	3·09	— 1·01	14·17	0	0	0	0	0
Hamilton	46 25	63 48	....	....	....	....	....	16·8	— 3·4	3	5	25	−17·0	20	16·7	....	....	....	....	....	4	3	4	0	1	4	3	12	0	62	....	....	....	4·09	— 2·28	7·24	0	0	0	0	0
Murray River	....	....	35	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
NEWFOUNDLAND:																																							
St. John's	47 34	52 42	125	29·80	30·59	29·09	1·50	21·6	− 1·9	29	46·0	25	− 6·0	17	14·6	....	....	....	7	12	10	0	1	0	21	3	18	9	0	62	.....	21·2	25 S	7·08	−1·17	1·25	13	17	0	0	7
Channell	47 31	59 9	20	....	....	....	....	21·5	+ 1·5	15	41·0	25	− 3·0	20	11·6	....	....	....	7	11	5	8	7	21	5	2	27	18	0	93	III	VI	6 NW	6·80	+1·01	1·20	14	17	0	0	2
*Cape Norman	51 38	55 52	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
*Amour Point	51 28	56 51	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
*Point Rich	50 42	57 25	35	....	....	....	....	12·9	0·0	18	42·0	28	−14·0	20	—	....	....	....	....	....	32	3	7	15	12	9	5	10	0	93	....	....	....	2·60	−0·46	1·30	8	23	0	0	0
BERMUDA:																																							
Prospect	37 20	64 50	151	30·01	30·40	29·03	1·37	61·1	− 1·2	10	71·8	12-18	49·2	30	10·4	....	....	7	6	1	11	1	3	1	13	7	16	9	62	....	31·0	26 W	9·71	+4·77	3·32	21	10	0	4	0

PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &c., DURING JANUARY, 1901.

STATIONS.	Rainfall. Amount in inches.	No. of Days '01 or Over.	No. of Fair Days.	Heaviest Fall in Month.	Date	Snowfall. Amount in inches.	No. of Days.	Heaviest Fall in Month.	Date.	Remarks.
British Columbia—										
Royal Oak	6·20	13	14	1·65	12	7·0	4	5·0	3	
Vancouver	5·51	13	13	1·62	11	59·3	5	10·0	7	
Nass Harbour	8·45	6	16	2·05	12	38·0	9	10·0	11	
Port Essington	14·83	16	15	3·19	17	.....	.....	.....	.....	
Nanaimo	4·41	9	15	2·78	12	40·0	7	16·0	2–3	
Caulfields	5·64	15	9	1·23	11	38·5	7	10·5	7	
Goldstream Lake	7·99	12	8	3·31	12	40·5	12	11·5	1	
Cumberland	1·24	1	21	1·24	12	4·0	9	9·0	10	
N. W. Territories—										
Didsbury	....	....	.....	.....	.....	2·2	3	1·0	4	
Weyburn	....	.....	.....	.....	.....	18·0	7	4·0	7	Very cold 1st to 11th; blizzard 15th,
Saltcoats	.....	.....	.....	.....	.....	16·0	3	6·0	7	49° below on 1st. [16th.
Innisfail	.....	.....	.....	.....	.....	3·0	5	1·5	26	
Coutts	.....	.....	.....	.....	.....	16·5	7	8·0	8–9	Very little snow left on 27th.
Beaver Hills	.....	.....	.....	.....	.....	4·0	7	1·0	7	Bad wind on 28th.
Strathcona	.....	.....	.....	.....	.....	3·8	10	6·0	28	
Regina	.....	.....	.....	.....	.....	14·5	6	6·0	16	Bad blizzard on 16th.
Cochrane	.....	.....	.....	.....	.....	0·7	3	0·5	4	Chinook 9.h to 22nd.
Northern	.....	.....	.....	.....	.....	2·3	3	1·0	28	
Manitoba—										
Hartney	.....	.....	.....	.....	.....	11·5	6	3·0	29	
Oakbank	.....	.....	.....	.....	.....	15·0	11	6·0	15	15th, blizzard.
Pembina Crossing	.....	.....	.....	.....	.....	.....	9	.....	.....	Snow on level 13 inches.
Morden	.....	.....	.....	.....	.....	11·0	9	4·0	15	15th, blizzard.
Belmont	.....	.....	.....	.....	.....	.....	6	.....	.....	
Norquay	.....	.....	.....	.....	.....	6·3	5	3·0	16	41° below on 2nd.
Deloraine	.....	.....	.....	.....	.....	29·3	14	2·2	28	
Turtle Mountain	.....	.....	.....	.....	.....	8·5	4	6·0	28	
Ontario—										
Ennismore	.....	...	.....	.....	.....	13·0	5	10·0	9	
Lion's Head	0·23	2	.....	0·18	8	.....	.....	.....	.....	
Providence Bay	0·40	4	12	0·25	8	31·3	16	8·0	1–2	
Kitley	0·61	2	23	0·45	18	16·5	5	10·0	12	
Cayuga	0·81	3	17	0·39	10	6·8	9	2·3	11	
Lansdowne	0·07	2	22	0·07	16	12·5	6	4·0	12	
Arden	1·20	5	20	0·43	15	19·0	7	7·0	12	
Wiarton	0·36	3	18	0·30	8	33·0	10	9·0	31	12° below on 17th.
Dutton	1·52	3	18	0·60	9	10·0	10	4·0	11	
Scarboro	6·75	5	12	0·25	23	15·4	16	5·0	12	14° below on 19th.
Dealtown	1·10	6	21	0·66	9	7·0	7	4·0	11	
Watford	0·20	1	.....	0·20	10	.....	.....	.....	.....	
Emsdale	0·23	1	18	0·23	8	25·5	12	6·0	12	
Georgetown	0·33	3	6	0·19	8	27·0	22	6·0	10	Fog on 6 days.
Croydon	0·65	2	21	0·50	9	21·5	6	10·0	11	
Wyoming	0·37	2	25	0·22	10	5·5	4	3·0	6	
Wooler	0·35	2	23	0·20	16	13·5	6	4·0	11	
Midland	0·30	1	21	0·30	8	24·5	9	8·0	31	
Jermyn	0·45	1	25	0·45	9	22·0	5	8·0	11	
Montague	1·15	2	26	0·60	10	8·0	3	4·0	12	14° below on 19th.
Port Burwell	1·25	5	21	0·63	10	11·0	5	3·0	27	
Parma	0·46	2	22	0·23	11	20·0	8	8·0	12	
Goderich	0·23	2	22	0·20	8	26·0	7	5·0	12	
Westminster	1·02	2	25	0·51	8	8·0	4	5·0	28	
Orangeville	.....	.....	18	.....	.....	20·6	13	9·1	12	
Aurora	0·06	1	18	0·06	9	21·0	12	7·8	12	
Oliver's Ferry	0·40	2	25	0·25	8	13·0	4	8·0	11–12	Ice on lake 24 inches thick.
Uxbridge	0·31	1	18	0·31	8	31·0	12	7·0	11	18° below on 19th.
Ursa	0·6	1	18	0·61	16	31·0	13	6·0	11	20° below on 3rd.
Huntsville	1·20	2	23	0·90	9	18·5	7	5·5	16	
Lynedoch	0·84	2	24	0·70	9	4·5	4	4·0	14	
Elgin	0·19	2	24	0·19	16	27·0	5	10·0	10	14° below on 19th.
Deer Park	0·65	3	23	0·30	8	13·0	6	5·8	12	
Princeton	0·33	2	22	0·19	10	19·0	8	6·0	11	
Sunshine	0·38	2	19	0·26	9	21·0	10	5·0	12–13	
New Brunswick—										
Point Escuminac	1·34	2	21	0·72	24	19·2	7	5·0	31	
Nova Scotia—										
Port Morien	4·19	6	23	1·25	28	2·0	2	2·0	6	

Aurora Recorded:

Where the class of aurora is noted by the observer, it is given, (I) being the brightest, (IV) the feeblest in brilliancy.

1. Haileybury, IV.
7. Haileybury, IV; Banff, IV.
9. Strathcona, IV.
10. Bowsman, III.
11. Channel Island, IV; Bowsman, IV; Oonikup.
12. Muskowpetungs, III; Aweme, IV; Bowsman, IV.
20. Strathcona, IV; Red Deer, IV.
21. Barnardo, II; Muskowpetungs, II; Red Deer, IV; Swift Current, IV; Prince Albert, I; Battleford, IV.
22. Coldwater, II; Truro, IV; Barnardo, III; Pembina Crossing, Muskowpetungs, I; Red Deer, I; Aweme, III; Hillview, IV; Battleford, IV; Quebec, IV.
23. Barnardo, III; Strathcona, IV; Huntsville, IV; Red Deer, IV; Aweme, III; Meaford, III; Swift Current, IV; Battleford, IV; White River, III; Oonikup.
24. Muskowpetungs, II; Bowsman, III; Battleford, IV.
25. Muskowpetungs, I.
26. Red Deer, III.
30. Chicoutimi.

PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY DURING WHICH THE SUN WAS ABOVE THE HORIZON IN THE MONTH OF JANUARY, 1901.

	Hours Ending															
	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.
Victoria				0·00	0·04	0·15	0·26	0·35	0·30	0·27	0·23	0·14	S			
Kuper Island																
Agassiz				0·00	0·00	0·09	0·22	0·25	0·21	0·18	0·22	0·19	0·03			
Battleford				0·18	0·35	0·47	0·47	0·42	0·41	0·43	0·02	0·04	0·00			
Indian Head				0·00	0·00	0·04	0·21	0·47	0·47	0·42	0·30	0·01	0·00			
Brandon				0·14	0·44	0·45	0·49	0·50	0·47	0·44	0·26	S	0·00			
Winnipeg					0·09	0·36	0·50	0·52	0·49	0·45	0·48	0·19	0·00			
Durham				0·01	0·02	0·05	0·06	0·08	0·06	0·08	0·06	0·10	0·02			
Woodstock				0·00	0·07	0·07	0·15	0·18	0·21	0·20	0·19	0·14	0·04			
Toronto				0·00	0·16	0·24	0·28	0·34	0·32	0·26	0·27	0·32	0·13			
Lindsay				0·00	0·12	0·26	0·33	0·28	0·31	0·29	0·23	0·16	0·08			
Barrie				0·03	0·10	0·21	0·24	0·22	0·22	0·20	0·08	0·08	0·03			
Kingston				0·02	0·25	0·32	0·37	0·50	0·45	0·38	0·27	0·09	0·00			
Ottawa				0·01	0·14	0·29	0·42	0·46	0·45	0·53	0·45	0·29	0·02			
Montreal				0·00	0·06	0·32	0·37	0·37	0·40	0·46	0·40	0·27	0·00			
Fredericton				0·25	0·33	0·40	0·37	0·38	0·41	0·35	0·35	0·09	0·00			

	Victoria.	Kuper Island.	Agassiz.	Battleford.	Indian Head.	Brandon.	Winnipeg.	Durham.	Woodstock.	Toronto.	Lindsay.	Barrie.	Kingston.	Ottawa.	Montreal.	Fredericton.
Mean proportion for month (*Constant sunshine being 1*)	0·19		0·16	0·35	0·22	0·37	0·36	0·06	0·13	0·25	0·22	0·15	0·29	0·33	0·34	0·34
Difference from average	+ 0·02		− 0·02	+ 0·04	− 0·08	− 0·03	− 0·06	.....	− 0·08	− 0·02	− 0·04	− 0·05	+ 0·02	− 0·00	− 0·01	− 0·06
Maximum daily amount	0·80		0·71	0·94	0·64	0·86	0·89	0·80	0·90	0·90	0·96	0·89	0·87	0·90	0·91	0·90
Date	30		20	21	6	1	12	19	22	19	22	22	5	19	19	5
No. of days completely clouded	13		16	5	11	10	7	28	19	9	12	14	7	11	13	13

FORECASTS FOR JANUARY, 1901.

The forecasts issued by this office at 11 p.m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of predictions issued during the month was 951. These were divided as follows :—

District.	No. Issued.	Verified.			
		No. Fully	No. Partly	No. Not	Percentage
Manitoba	91	68	11	12	80·8
Lake Superior	102	76	12	14	80·4
Lower Lake Region	112	81	22	9	82·1
Georgian Bay	111	70	25	16	74·3
Ottawa Valley	104	81	12	11	83·7
Upper St. Lawrence	104	82	13	9	85·1
Lower St. Lawrence	104	85	15	4	88·9
Gulf	106	88	10	8	87·7
Maritime Provinces	117	88	18	11	82·9
Total	951	719	138	94	82·8

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

TEMPERATURE AND WEATHER AT DAWSON, YUKON, JANUARY, 1901.

Date.	Temperature.		Barometric Pressure.	Remarks.	Date.	Temperature.		Barometric Pressure.	Remarks.
	Max.	Min.				Max.	Min.		
			in.					in.	
1	19·5	−21·2	29·578	Cloudy.	17	−46·5	−67·5	29·315	Dense fog.
2	12·5	35·7	29·580	„	18	45·5	−63·0	28·618	„
3	−7·0	−32·7	29·465	„	19	−17·3	50·0	28·640	„
4	−12·3	−15·2	29·215	„	20	−10·2	46·0	28·320	Snow.
5	19·0	−20·7	29·285	Light snow.	21	−21·0	−25·2	28·581	Clear.
6	27·2	33·2	29·300	Cloudy.	22	23·3	−29·4	28·685	„
7	−16·3	−30·4	29·050	„	23	20·8	−21·7	27·921	„
8	−7·2	−30·2	28·745	Snow.	24	4·2	1·5	28·356	„
9	7·3	−17·3	28·543	„	25	2·5	−3·5	28·400	„
10	−41·5	46·5	28·550	Dense fog.	26	−1·5	7·2	28·330	„
11	−54·0	55·4	28·538	„	27	1·8	10·7	28·510	„
12	−28·5	58·8	28·280	„	28	−3·0	−10·4	29·018	„
13	29·0	59·7	28·400	Clear.	29	9·0	−10·5	28·812	„
14	−56·5	6·7	28·730	Dense fog.	30	5·0	−6·0	29·262	Snow.
15	62·2	4·9	29·068	„	31	3·9	−9·0	29·085	Cloudy.
16	−64·5	57·6	29·110	„					
						−17·39	−31·86	28·820	

R. F. STUPART,
Director.

Meteorological Office, Toronto,
26th February, 1901.

METEOROLOGICAL SERVICE, DOMINION OF CANADA.

Monthly Weather Review.

VOL. XXV FEBRUARY, 1901. No. 2

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INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm signal agents. For the material used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

REMARKS UPON THE WEATHER.

The weather in Canada during February was generally a little milder and drier than usual west of Ontario also east of western Quebec, whilst elsewhere it was exceptionally cold and somewhat drier than usual. Throughout the country with few exceptions there was good sleighing.

In British Columbia the weather was somewhat milder and drier than usual, and during the first half of the month in Vancouver Island and over the Lower Mainland it was exceptionally fine. Over the Upper Mainland the period of fine weather was even more extended and throughout the Province the proportion of bright sunshine was above average. The precipitation was mostly rain and the greater part of the snow that fell was soon melted. After the 20th, the signs of Spring were quite numerous, snow-drops and crocuses being in bloom in some districts.

The weather in the North-west Territories was not as cold as usual, the temperature being as much as 6°·8 above average in northern districts. The precipitation which was mostly snow, although average or below at most stations, was above at a few places. The observer at Regina from reports collected summarises the conditions as follows. "In the east part of the Territory (Assiniboia) there was severe cold with slight snowfalls until the 10th; from the 10th to 17th much milder weather, and some thawing occurred. On the 17th there was a severe storm north-east, changing next day to north-west, and continuing on the 18th; there was another severe storm from the north-west on the 22nd. followed by calm cold weather up to the 27th when it turned milder and snow was melting. The weather conditions were on the whole similar as to variations, but were generally very much milder and on the 28th there was little snow left." The thickness of ice was 30 inches at Battleford, 32 inches at Swift Current, and 12 inches at Medicine Hat.

In Manitoba the weather conditions were somewhat similar to conditions in the Territories; it was not, however, as mild, and there was enough snow for good sleighing throughout the month. Clouded skies were rather more frequent than usual, and the proportion of bright sunshine was also below average. At Minnedosa the ice was 24 inches in thickness and at Brandon 40 inches.

The weather in Ontario was unusually cold and dry, the temperature being considerably below average and the precipitation, with a few quite local exceptions, also being below. Although the actual minimum temperatures were not exeptional, the cold weather was exceedingly persistent, and there were few mild days. Strong winds were also unusually frequent and the snow that fell was much drifted. In the western portion of the province the proportion of bright sunshine was below average, but elsewhere it was greater than usual. The ice measurements reported varied considerably, but were about 20 inches in northern districts and from 6 to 20 inches in the southern portion of the Province.

In the Province of Quebec the weather was exceptionally cold in western districts, but was generally milder than usual elsewhere. The same inequality was noticeable in the precipitation it being below and above average respectively in the western and eastern portions of the Province. Strong winds were unusually frequent and the snow was much drifted.

In New Brunswick the weather was a little milder and drier than usual but at some places on the contrary the mean temperature was below average. In most districts there was much cloudy weather and at Fredricton the proportion of bright sunshine was below average. Light winds were very frequent and the snow not being much drifted gave excellent sleighing throughout the month. The ice at Fredricton measured 27 inches on the 28th.

The weather in Nova Scotia was not as cold as usual, the mean temperature being generally above average and the precipitation below, with a few local exceptions Temperatures below zero were only reported from two stations, namely Parrsboro and Bridgetown, and maximum temperatures between 40° and 47° were recorded at many places. In most districts there was fair sleighing throughout the month.

In Prince Edward Island the weather conditions were very similar to conditions in New Brunswick, it being a little milder and dry. Clouded skies were unusually frequent, but there were a few bright cold days. Much damage was done in some districts to trees and telegraph wires by silver thaw, the coating of ice during a fall of rain and sleet early in the month being very heavy.—F. F. Payne.

ATMOSPHERIC PRESSURE.

The distribution of atmospheric pressure was most remarkable, the Eastern portion of the Maritime Provinces being no less than half an inch below average. This great deficiency gradually diminished until the normal was reached over the Straits of Mackinaw and west of this to British Columbia the departure from average was positive, the largest excess occurring in Alberta and Western Assiniboia and amounting to a tenth of an inch. On the coast line of British Columbia atmospheric pressure was sligthly below the average.

HIGH AREAS.

Seven areas of high pressure were chartered during the month, their general movement being from the far North-west, and several were of much importance and of long duration.

No. 1 was a moderate area which appeared to the northward of Lake Superior on the 1st and after reaching the Ottawa Valley on the morning of the 3rd it broke up. It was attended by low temperatures, stations in Northern Ontario reporting from 16 to 26 degrees below zero. No. 2 was an area of importance. On the 2nd it was over Alberta, its attendant cold wave spreading with rapidity to all portions of Canada, zero weather being very generally recorded. The system itself moved slowly, and eventually after the 7th lost its identity in the Ohio Valley. No. 3 was situated in British Columbia on the morning of the 7th whence the main system passed southward to Nebraska and Kansas and eventually off the Middle Atlantic Coast. Its accompanying cold wave meanwhile causing a continuance of decidedly cold weather in all portions of Canada. No. 4 was of considerable energy, accompanied by another pronounced cold wave. It moved into Alberta on the 9th and after reaching Lake Superior on the 13th it hovered and gradually broke up. No. 5 was a moderate area which passed into the North-west Territories during the night of the 14th and after reaching Manitoba on the 16th it dispersed. No. 6 was a very important area which moved into the North-west Territories on the 18th from Northern British Columbia. It was attended by a very pronounced cold wave which shortly spread to Ontario and Quebec, and eventually to the Maritime Provinces, the high area itself hovered in the North-west Territories until the 23rd its centre meanwhile continually shifting its position. After the 23rd the system passed southward and dispersed. No. 7 was not a very pronounced area; on the 25th it was centred in the North-west Territories accompanied by zero weather, whence it passed south-eastward, reaching the Middle Atlantic Coast on the night of 28th. Its accompanying cold weather was meanwhile generally experienced in Ontario, Quebec, and the Maritime Provinces.

LOW AREAS.

Ten areas of low pressure were charted during the month as follows.

No. 1 was an area of considerable energy which was situated in Lower California on the morning of the 1st, whence it passed to the Atlantic Coast, skirting the southern portion of the Lower Lake Region on the 4th and the Nova Scotian Coast on the 5th and 6th. It caused a fairly heavy snowfall from Ontario to the Maritime Provinces together with strong winds and gales, the high winds lasting for several days in all parts of Eastern Canada. No. 2 was apparently near Bermuda on the 1st. On the 3rd it skirted the Cape Breton Coast and thence passed to the southward of Newfoundland. It caused strong breezes and moderate gales in the Lower St. Lawrence and the Maritime Provinces together with snow and rain, the precipitation being decidly heavy in Cape Breton. No. 3, between the 5th and 9th travelled from the Middle Pacific Coast into the Lake Region and then dispersed. It was accompanied in the Lake Region by a fairly general snowfall amounting to six inches in some localities. No. 4 passed between the 8th and 9th from the Coast of Texas over the Southern States and off the Carolina Coast, and did not affect Canadian weather. No. 5 was a very shallow depression which between the 9th. and 11th. travelled from Northern Alberta to Lake Superior and then dispersed. It was accompanied over its course by light snowfalls. No. 6 was also a very moderate area. It was situated over Northern British Columbia on the morning of the 13th and after travelling south-eastward to Illinois, which it reached on the 15th, it dispersed. It apparetly did not cause any precipitation. No. 7 caused strong winds and gales and rain in British Columbia between the 15th and 16th and subsequently

high winds and snow throughout the Territories and Manitoba, the snowfall being decidedly heavy in some localities. The area then moved into the Lake Region, where it eventually broke up, after giving a few light local snowfalls. No. 8 was situated in the Gulf of Mexico south of Texas and Louisiana on the night of the 22nd. It travelled with unusual rapidity to the Florida Coast and up the Gulf Stream and proved to be a storm of great severity. On the 24th it swept over the Maritime Provinces causing a gale of exceptional violence, together with a heavy fall of snow. No. 9 was a moderate depression situated to the northward of Lake Superior on the 23rd whence it moved slowly over the Ottawa and St. Lawrence Valleys to the Gulf of St. Lawrence. It was attended by moderate snowfalls in many portions of Ontario and Quebec, as well as by strong westerly winds. No 10 travelled with rapidity between the 25th and 26th from the Texas Coast to Florida and thence seemingly out to sea.

WINDS.

In British Columbia over the Lower Mainland and Vancouver Island the direction was on the whole variable with a slight tendency for a preponderance of northerly. Fresh or strong breezes were of infrequent occurrence and the force of a gale was not reported.

In the North-west Territories the direction was also largely variable but favouring the westerly some what. The wind mileage was not excessive, the force of a gale was hardly anywhere attained and strong breezes were only recorded on five or six occasions.

In Manitoba the winds blew from the eastward on twenty days and there were four days of strong and eleven of fresh breezes.

In the Lake Region the westerly direction largely preponderated, the force of a moderate gale was reached on four occasions, strong breezes on three days and fresh winds on ten days.

In the St. Lawrence Valley and the Gulf the direction was nearly altogether westerly, and the wind mileage was excessive; strong breezes being of very frequent occurrence and between the 5th and 8th and the 12th and 15th the force of a gale was attained almost continuously.

In the Maritime Provinces the westerly direction prevailed on twenty five days, fresh or strong breezes were experienced on twelve days, as well as gales on the 3rd 6th 12th and 24th ; the gale of the 24th was exceptionally heavy and that on the 6th although of moderate force, was of long duration and did not wholly subside until the 9th At stations where winter navigation is pursued, the gales of the 6th and 24th were warned, but the warning for the 24th was issued late. A further warning issued on the 20th was not justified by subsequent high winds.

BRIGHT SUNSHINE.

Bright sunshine was considerably in excess of the average amount both over Vancouver Island and also on the Mainland of British Columbia. It was also above the average over the greater portion of Ontario and Quebec, but elsewhere except at Indian Head in Assiniboia it was rather deficient.

TEMPERATURE.

The mean temperature was below average throughout Ontario, the South-western parts of the Province showing the largest departures, which were from 5 to 10 degrees. In Western Quebec the temperature was likewise below average, but in all other parts of the Dominion it was above average, and particularly so in Eastern Nova Scotia and in Saskatchwan and Northern Alberta. A positive departure of 7° was recorded at Sydney, N.S., 7° at Prince Albert, and 7° at Edmonton. In Manitoba and the Territories there where several fairly pronounced cold spells, but no temperature much lower than—30° has been reported. In Ontario the steady cold weather was the chief characteristic of the month, but no unusually low temperatures occurred, except in the more northern districts from Nipissing westward to Port Arthur. In Quebec and the Maritime Provinces the month was characterized more especially by two cold blustery periods, the first between the 5th and 7th, and the second between 12th and 14th.

The Highest and Lowest Temperatures in each Province during February, 1901, were :

British Columbia,	65°·0 on 28th at Princeton.	—20°·0 on 4th at Midway.
North-west Territories,	59°·0 on 28th at Pincher Creek.	—32°·0 on 4th at Muskowpetung.
Manitoba,	46°·0 on 28th at Bowsman.	—36°·0 on 20th at Bowsman.
Ontario,	49°·0 on 19th at Stouffville.	—30°·0 on 28th at Bissette.
Quebec,	39°·0 on 18th at Sherbrooke.	—25°·9 on 4th at Chicoutimi.
New Brunswick,	41°·0 on 19th at Moncton.	—19°·0 on 23rd at Sussex.
Nova Scotia,	47°·0 on 24th at Sable Island.	—10°·0 on 23rd at Bridgetown.
Prince Edward Island,	39°·4 on 1st at Charlottetown.	1°·3 on 23rd at Charlottetown.

PRECIPITATION.

The precipitation did not differ greatly from average near the Pacific Coast and was chiefly in the form of rain, although several days of snow occurred in all localities. In the North-west Territories and Manitoba the snowfall was very generally a little greater than average, and except in Southern Alberta, sleighing was good throughout the month. Near the eastern shores of Lake Huron and the Georgian Bay from 30 to 40 inches of snow fell, and at some points near the eastern end of Lake Erie there was also a heavy snowfall, but over the larger portion of Ontario, throughout Quebec and also in the Maritime Provinces, exclusive of Eastern Nova Scotia, the precipitation was considerably less than average and was wholly in the form of snow; in Cape Breton, however, there were several days of rain and also several heavy snowstorms.

At the close of the month the valleys and lower levels in Vancouver Island, and the mainland of British Columbia, were bare of snow, as were also the prairies of Southern Alberta and Western Assiniboia, but all other parts of the Dominion were snow covered. Stations in Western Manitoba and the Qu'Appelle Valley reported from 20 to 40 inches on the level. In Ontario, the depth was nearly three feet on the western slope towards the Georgian Bay and Lake Huron; in Eastern Ontario and Western Quebec the depth was about two and a half feet, and a depth of three feet or over was very general in Eastern Quebec and the interior of New-Brunswick.

THICKNESS OF ICE.

North-west Territories and Manitoba.—Battleford, 30 inches; Swift Current, 32; Medicine Hat, 12; Minnedosa, 24; Brandon, 40.

Ontario.—Port Arthur, 26; White River, 15; Parry Sound, 20; Saugeen, 22; Port Stanley, 12; Toronto, 8; Kingston, 20; Bloomfield, 24; Owen Sound, 18; Orillia, 18; Hamilton, 17; Stony Creek, 14; Georgetown, 15; Stratford, 20; Barrie, 18; Midland, 22; Arden, 19; Woodstock, Hamilton.

Maritime Provinces.—Fredericton, 27; Hamilton, 24.

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, FEBRUARY 1901.

a Barometer not reduced to Sea Level. • Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	Pressure. Mean reduced.	Pressure. Highest.	Pressure. Lowest.	Pressure. Range.	Temperature. Mean.	Temperature. Difference from average.	Temperature. Years observt.	Temperature. Highest.	Temperature. Date.	Temperature. Lowest.	Temperature. Date.	Temperature. Mean daily range.	Mean temperature of Dewpoint.	Mean relative Humidity.	Mean amount of Cloud.	No. of days completely clouded.	Direction of Wind from. N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	C.	Total number of hours.	Velocity of Wind. Mean miles per hour.	Highest day's velocity.	Date and direction from.	Precipitation. Amount.	Difference from Average.	Heaviest fall in month.	Days with .01 or more.	No. of Fair days.	No. of Auroras.	No. of Thunder storms.	No. of Fogs.
British Columbia:	° ′	° ′	ft.	in.	in.	in.	in.	°	°		°		°		°																								
Victoria	48 24	123 19	85	30·01	30·34	29·51	0·83	41·1	+ 1·4	10	58	4	28	28·3	9	9·5	.....	.....	6	8	218	174	58	43	39	49	58	23	9	672	9·7	21·3	16 W	3·36	—0·74	0·60	10	10	0	0	0
Barkerville	53 2	121 35	4180	30·07	30·90	29·16	0·54	19·2	+ 0·2	13	44	0	24	—14·0	18	19·1	.....	.....	6	11	4	0	0	1	4	5	2	1	39	56	.....	VIII	13 SW	1·22	—2·84	0·40	6	26	0	0	0
Agassiz	49 14	121 31	52					33·6	— 3·4	10	54	0	25	16·0	5	16·0	.....	.....	3	0	36	0	0	0	21	0	27	0	0	84	.....	.....	.....	5·46	—0·67	1·93	15	13	0	0	0
Port Simpson	54 34	130 26	26	29·90	30·48	29·23	1·25	35·0	+ 0·8	14	52·0	28	18	14·0	21	11·7	31·0	87	5	9	25	2	0	7	4	2	3	1	34	78	II	V	S 8	6·26	—2·34	2·47	10	18	0	0	9
Spence's Bridge	50 23	120 20	770					30·6	+ 3·8	10	63·0	28	2·0	5·12·4			.....	.....																6·15	—0·34	0·10	3	22	0	0	0
Hazelmere	49 3	122 43						40·6	—	8	59·0	28	10·2	12·20·6			.....	.....			0	19	11	24	0	2	0	0	0	56	.....	.....	.....	2·23	—	0·78	7	21	0	0	0
Revelstoke	51 0	118 6	1476														.....	.....																					
Kamloops	50 41	120 29	1193														.....	.....																					
Princeton	49 29	120 29	1650														.....	.....																0·96	—	0·49	11	17	0	0	0
Pilot Bay	49 39	116 55						29·5	—	6	46·0	28	11·0	5·10·4			.....	.....																5·38	.....	1·38	6	22	0	0	0
Rivers Inlet	51 39	127 19	20	29·97	30·42	29·11	1·31	36·7	—	7	52·4	12	23·2	26·12·6			.....	.....	5	8	1	24	1	10	0	4	2	0	42	84	II	IV	19 NE	9·39	.....	3·35	12	16	0	0	0
Stuart's Lake	54 28	124 12	1800														.....	.....																					
French Creek	49 20	124 36						37·5	—	8	54·0	7–28	13·0	6·17·3			.....	.....																2·85	—	0·43	12	16	0	0	0
Glacier	51 16	117 28	4072														.....	.....																					
Donald	51 28	117 11	2040														.....	.....																					
Griffin Lake	50 56	118 29	1517														.....	.....																					
Coldstream	50 14	119 15	1246					22·6	—	7	42·0	14–28	— 6·0	5·15·5			.....	.....																0·59	—	0·17	6	22	0	0	0
a Kuper Island	48 58	123 38															.....	.....																					
Chilliwack	49 10	121 57															.....	.....																					
Quatsino	50 32	128 3						37·1	—	6	51·0	28	22·5	21·10·8			.....	.....																11·07	.....	2·10	13	14	0	0	0
Midway	49 0	118 46	1800					21·4	—	6	54·0	27	—20·0	4·22·7			.....	.....																0·37	—	0·30	3	25	0	0	0
Enderby	50 32	119 7	1180					23·6	—	5	45·0	18	—10·0	6·19·5			.....	.....																0·97	—	0·27	6	22	0	0	0
Nicola Lake	50 5	120 39	2120					24·9	—	6	49·5	28	— 1·0	7·16·6			.....	.....																0·59	—	0·25	7	20	0	0	0
West Kootenay	49 20	117 50						25·6	—	6	48·0	28	— 1·0	5·16·9			.....	.....																1·36	—	0·47	6	22	0	0	1
Garry Point	49 21	123 17						38·3	—	6	55·0	28	21·0	8·33·9			.....	.....			4	6	35	5	3	3	10	9	9	84	9·5	20·0	14 W	4·38	—	1·15	14	14	0	0	0
Tobacco Plains	49 1	115 5	2300					23·9	—	6	48·0	28	—14·6	22·16·1			.....	.....																1·57	—	0·86	5	23	0	0	0
Vancouver	49 18	123 4	195					38·0	—	3	55·4	28	23·0	23·11·8			.....	.....																6·31	—	2·10	11	17	0	0	0
New Westminster	49 13	122 54	330	30·04	30·36	29·53	0·83	38·1	—	9	54·0	28	22·0	6·12·0			.....	.....	6	8	1	9	19	0	6	2	7	0	12	56	.....	12·0	4 NE	8·62	—	3·01	13	14	0	0	3
a Ladner	49 5	123 4						36·3	—	2	54·0	28	20·0	5·13·2			.....	.....			4	7	6	8	0	0	0	2	1	28	.....	.....	.....	5·53	—	0·75	12	16	0	0	0
N. Nicomen	49 17	121 59						38·9	—	9	62·0	28	24·0	9·11·7			.....	.....																10·12	—	3·53	14	17	0	0	0
Quesnello	52 59	122 30	1700					21·2	—	6	52·0	28	17·0	21·26·5			.....	.....																—·—	—	—·—	0	0	0	0	0
Clayoquot	49 11	125 55	40					38·4	—	3	55·0	11	24·0	5·12·3			.....	.....																17·84	—	4·25	14	14	0	0	0
Cranbrook	49 30	115 50						21·1	—	1	47·0	28	—15·0	5·23·6			.....	.....																					
Massett	53 58	132 9	30														.....	.....																					
Quesnello Forks	52 45	121 55						21·7	—	4	46·0	27	—12·0	22·18·1			.....	.....																0·82	—	0·23	7	21	0	0	0
Bella Coola	52 20	126 54	150								52·0	12	13·0	20 —			.....	.....																					
Duncan'	48 45	115 50	40					38·4	+ 2·6	11	60·0	26	15·0	6·19·9			.....	.....																4·61	+0·57	1·25	11	17	0	0	0
Nelson	49 29	117 21						29·3	—	2	47·0	17	7·0	6·13·9			.....	.....																1·45	—	0·51	6	22	0	0	0
Okanagan Mission	49 52	119 29						25·7	—	2	48·2	28	— 1·2	5·16·0			.....	.....																3·13	—	2·50	6	22	0	0	0
Matsqui	49 7	122 16						39·3	+ 3·4	12	61·5	28	21·5	8·11·9			.....	.....																7·59	+2·14	2·06	14	14	0	0	0
Rossland	49 6	117 49	3400	30·16	30·42	29·86	0·56	27·4	—	2	46·1	12	5·4	6·16·8			.....	.....			0	7	0	0	0	11	0	2	0	20	.....	.....	.....	2·80	—	0·63	10	18	0	0	1
Alberni	49 30	124 50	300					35·1	—	2	54·1	28	17·9	6·13·1			.....	.....																8·09	—	2·36	14	14	0	0	0
N.-W. Territories:																																							
Medicine Hat	50 1	110 37	2161	30·25	30·96	29·79	1·17	14·9	+ 4·1	17	53·0	28	—17·0	11·19·2			.....	.....	6	6	6	2	3	1	12	4	10	3	15	56	.....	22·7	16 NW	1·40	+0·73	0·40	10	15	0	0	0
Edmonton	53 33	113 30	2158	30	18	30	83	29·55	1·28	14·9	— 6·8	18	56·0	28	—27·0	19·21·1	.....	.....	5	9	3	2	6	0	1	1	7	5	31	56	.....	13·3	16 N	1·50	+0·83	0·22	22	16	0	0	0
Swift Current	50 20	107 45	2439	30·30	31·08	29·17	1·91	9·4	+ 1·9	15	44·0	28	—18·0	5·16·5	.....	.....	4	0	13	11	12	34	44	138	279	75	66	672	12·3	31·0	16 SW	0·50	+0·24	0·12	7	20	1	0	0
Qu'Appelle	50 30	103 47	2115	30·24	30·88	29·38	1·50	3·0	+ 3·8	18	38·7	28	—27·2	4·17·9	.....	.....	5	3	2	0	0	3	6	10	6	27	2	56	.....	27·1	22 NW	1·59	+0·86	1·50	4	24	2	0	0
Calgary	51 2	114 2	3389	30·22	30·91	29·24	1·67	15·6	+ 2·7	17	57·0	28	—18·0	5·19·3	.....	.....	5	4	6	4	2	6	3	3	11	12	9	56	.....	25·0	14 W	1·02	+0·39	0·40	6	22	1	0	0
Prince Albert	53 10	106 2	1402	30·18	30·85	29·34	1·51	3·4	+ 6·6	16	52·0	28	—26·4	5·23·0	.....	.....	4	6	3	2	1	3	0	1	3	11	43	56	.....	14·0	16 SE	1·03	+0·34	0·50	6	19	0	0	0
Battleford	52 41	108 20	1620	30	28	30	96	29·25	1·71	4·1	— 3·8	10	48·0	28	—24·0	5·20·6	.....	.....	6	6	41	0	3	136	2	0	180	123	187	672	5·4	26·7	16 SE	0·26	—0·11	0·06	1	10	0	0	0
Oonikup	53 30	101 20															.....	.....																					
a Banff	51 10	115 35	4542	30·27	31·17	29·77	1·40	16·4	—	6	45·0	28	—25·3	22·19·5	.....	.....	6	3	0	8	1	0	4	15	4	4	20	56	....	16·0	12 SW	0·80	—0·12	0·25	8	19	0	0	0
Calgary (2)	51 4	114 4															.....	.....																					
Chaplin	50 27	106 46	2202					4·8	+ 5·0	16	42·0	28	—25·0	24·23·7			.....	.....																0·20	—0·49	0·20	1	27	0	0	0
Moose Jaw	50 24	105 38	1745					4·0	—	7	43·0	28	—25·0	3·19·0			.....	.....			3	0	0	3	4	3	21	11	11	56	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Regina	50 27	104 37	1885	— 0·2	+ 3·1	29·0		14	—25·0						4·18·3		.....	.....																0·23	—0·14	0·10	5	23	0	0	0

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, FEBRUARY, 1901

a. Barometer not reduced to Sea Level. *Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	PRESSURE. Mean reduced	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observed.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of Dewpoint.	Mean relative Humidity.	Mean amount of Cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of hours.	VELOCITY OF WIND Mean miles per hour.	Highest day's velocity.	Date and direction from	PRECIPITATION. Amount.	Difference from Average.	Heaviest fall in month.	Days with '01 or more	No. of Fair days	No. of Auroras.	No. of Thund. storms	No. of Fogs.
N.-W. TERRITORIES—*Con.*																																								
Indian Head	50 28	103 40	1924	.....	.....	.....	.....	0 6	+ 1·7	11	40 0	28	−29 0	4	19·4	.....	.....	.....	.....	0	0	0	7	5	15	6	51	0	84	.....	.....	.....	0·35	+0·15	0·30	2	26	0	0	0
Cannington Manor	49 43	102 2	.....	.....	.....	.....	.....	3 0	—	6	36 0	28	−28 0	4	15·5	.....	.....	.....	.....	6	9	0	5	1	10	15	17	2	56	.....	.....	.....	0·80	—	0·60	4	24	0	0	2
Macleod	49 44	113 24	.....	.....	.....	.....	.....	17·5	—	7	58 0	28	−25 0	6	19·4	.....	.....	.....	.....	9	8	8	3	1	7	40	3	0	84	.....	.....	.....	0·58	—	0·20	7	20	0	0	0
Gatesgarth	50 29	105 9	.....	.....	.....	.....	.....	2·9	—	6	36 0	14	−29 0	3	22·1	.....	.....	.....	.....	0	0	0	2	2	4	4	16	0	28	.....	.....	.....	—	—	—	—	—	—	—	—
Pincher Creek	49 11	104 0	3750	.....	.....	.....	.....	18 7	—	4	59 0	28	−17 0	5	17·6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·04	—	0·84	4	24	0	0	0
Grenfell	50 23	102 53	1957	.....	.....	.....	.....	3 3	—	1	42 0	28	−28 0	4	—	.....	.....	.....	1	3	1	0	0	1	7	29	6	40	0	84	.....	.....	.....	0·30	—	0·20	3	25	0	0	0
Knechill	51 55	113 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Muskowpetung	50 15	104 30	.....	.....	.....	.....	.....	0·5	—	3	41 5	28	−32 0	4	27·3	.....	.....	.....	.....	3	0	0	3	3	5	4	21	17	56	.....	.....	.....	0·30	—	0·20	3	25	0	0	0
Fort Simpson	61 52	121 43	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Alameda	49 19	102 17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dawson	52 54	106 9	.....	.....	.....	.....	.....	−19·2	.....	1	19 1	2	−49 4	16	19·1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Red Deer	52 15	113 30	.....	.....	.....	.....	.....	15·6	—	3	56·3	28	−16·3	11	17·6	.....	.....	.....	.....	4	3	1	4	0	9	2	5	0	28	.....	.....	.....	0·95	—	0·15	12	15	3	0	1
Saskatoon	52 15	106 30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Crane Lake	50 0	109 50	.....	.....	.....	.....	.....	13 0	—	2	53·0	28	−17 0	5	15·4	.....	.....	.....	.....	2	6	2	5	3	7	21	10	0	56	.....	.....	.....	0·68	—	0·25	7	19	0	0	1
Tagish (Yukon)	60 17	134 15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Estevan	49 12	103 4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Moosomin	50 9	101 37	1884	.....	.....	.....	.....	1 8	—	2	42 0	28	−29 9	3	18·3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·10	—	0·10	1	27	0	0	0
Athabasca Landing	54 43	113 17	.....	.....	.....	.....	.....	.....	.....	1	46 5	28	−35 5	23	—	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	—	—	—	1	—	—	—	—
Calgary (Exp. Station)	.....	.....	.....	16·1	—	1	53·9	28	−21 9	5	22·3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·79	—	0·30	8	20	0	0	0
Crescent Lake	.....	.....	.....	−1·9	—	1	28 0	14	−29 0	4	19·7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·27	—	0·13	6	22	0	0	0
MANITOBA :																																								
Minnedosa	50 10	99 48	1690	30·22	30·86	29·56	1·30	3 6	+ 6·7	18	38 0	13	−24 6	20	21·9	.....	.....	.....	4	2	0	0	2	3	0	4	16	12	19	56	.....	17·9	22 NW	0·38	+0·23	0·29	5	23	4	0	0
Winnipeg	49 53	97 7	760	30 22	30 80	29 56	1 24	0 1	+ 1·7	27	35 5	28	−27 6	20	22 2	.....	.....	.....	5	6	3	1	3	6	6	4	20	12	1	56	.....	29 2	18 W	0·90	−0·08	0·50	9	15	0	0	0
*a*St. Alban's (Aweme)	49 43	99 33	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Fort Osborne	49 53	97 11	.....	.....	.....	.....	.....	0·0	+ 2·1	15	34 0	23	−26 0	20	—	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Portage la Prairie	49 57	98 1	830	.....	.....	.....	.....	3 5	+ 2·4	13	40 0	28	−26 0	20	19·9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brandon	49 51	99 57	1176	.....	.....	.....	.....	2 0	+ 4 6	13	36·1	28	−29 2	20	20 8	.....	.....	.....	4	0	1	14	0	3	0	6	15	45	0	84	II	III	17 N	.....	.....	.....	0	0	0
Channel Island	52 18	97 23	710	.....	.....	.....	.....	−3 6	+ 2·1	13	38 0	28	−30 0	11	18 6	.....	.....	.....	5	4	0	1	6	6	16	3	16	26	0	84	III	V	21 NW	0·40	−0·09	0·20	2	26	1	0	0
Elkhorn	49 58	101 16	.....	.....	.....	.....	.....	0 7	− 2·0	0	39 0	28	−25 0	4	20 6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·40	—	0·40	1	27	0	0	0
Stony Mountain	50 5	97 12	803	30·07	30·72	29·45	1·27	1 6	− 2·7	29	30 0	28	−23 0	11	18 8	.....	.....	.....	5	8	1	1	0	12	4	6	3	29	0	56	II	IV	23 NW	0·40	+0·14	0·30	5	19	0	0	0
*a*Barnardo	50 59	101 26	.....	27 04	27·70	26 21	1·49	− 2·3	− 3·7	14	35 0	14	−25 0	4	21 0	.....	.....	.....	4	4	0	3	0	12	0	15	0	27	0	57	.....	.....	.....	0·90	+0·08	0·60	4	21	4	0	0
Treherne	49 38	98 42	.....	.....	.....	.....	.....	2 1	—	6	40 0	28	−20 0	20	19·5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·40	—	0·32	3	25	0	0	0
Rosebank	49 22	98 6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hillview	49 54	100 35	.....	.....	.....	.....	.....	0·3	+ 2·6	14	36·0	28	−23·0	5	18 8	.....	.....	.....	3	2	1	5	5	4	2	10	9	48	0	84	.....	.....	.....	0·60	0 22	0·50	3	25	0	0	0
Roseberry	49 14	99 20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pipestone	49 34	100 58	1490	.....	.....	.....	.....	2·1	—	8	36·0	13	−24·0	4	14·1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	—	—	—	—	—	—
Bowsman	52 15	101 4	1060	.....	.....	.....	.....	3 6	—	1	46 0	28	−36 0	20	28 4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·78	—	0·40	5	19	3	0	0
ONTARIO :																																								
Haileybury	47 29	79 39	687	30·10	30 48	29 53	0·95	5 7	—	7	30 8	18	−23·9	7	22·3	.....	.....	.....	6	4	2	0	0	0	8	2	7	21	16	56	II	V	12 NW	0·54	—	0·22	11	13	1	0	1
Sudbury	46 27	80 55	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Savanne	48 55	90 18	1506	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Missanabie	48 21	83 28	.....	.....	.....	.....	.....	4 4	— 1·1	10	30 0	18	−30 0	6	—	.....	.....	.....	.....	.....	30	3	4	3	8	0	23	13	0	84	.....	.....	.....	0·85	−0·72	0·30	5	23	0	0	0
*Schreiber	48 50	87 18	.....	.....	.....	.....	.....	5 1	—	7	27 0	28	−18 0	12	—	.....	.....	.....	.....	.....	27	0	0	0	0	3	0	0	7	47	84	.....	.....	.....	.....	.....	.....	8	20	0	0	0
Barrie	44 23	79 41	839	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Erasmus	43 58	80 22	.....	.....	.....	.....	.....	9·4	—	6	26·0	26	−6 0	8	−14	13·5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·50	—	0·40	18	8	0	0	0
*Cottam	42 7	82 45	.....	.....	.....	.....	.....	16 8	+ 8·5	12	34 0	18	−5·0	23	—	.....	.....	.....	.....	.....	4	2	2	4	4	18	36	14	0	84	.....	.....	.....	2 03	−0·76	0·53	6	22	0	0	1
Brantford	43 10	80 21	780	.....	.....	.....	.....	13 7	+ 7·5	20	35 0	23	−8·14	23	17·3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 30	−0·43	0·50	7	21	0	0	0
Parry Sound	45 15	80 0	635	29·98	30 40	29 57	0·83	9·8	+ 4·7	20	32 0	17	−19·2	28	24·7	.....	.....	.....	6	4	166	0	99	4	29	74	111	137	52	672	6·3	14 6	4 N	4·24	+1·32	0·80	15	13	0	0	0
Saugeen	44 30	81 21	656	30 00	30 44	29 64	0 80	16·7	+ 2·8	27	37 0	18	− 2·0	10	14 8	.....	.....	.....	8	10	7	4	10	2	3	2	11	5	12	56	.....	22 7	12 N	3·91	+1·00	0·61	24	4	0	0	0
Owen Sound	44 34	80 55	597	.....	.....	.....	.....	14 5	− 5·4	20	33 0	18	−12 0	10	16 8	.....	.....	.....	.....	.....	15	14	2	3	16	20	2	12	0	84	.....	.....	.....	3·92	+0·72	0·45	16	12	0	0	0
Uplands	45 48	79 25	.....	.....	.....	.....	.....	9 7	− 3·2	14	34 1	18	−20 1	8	23·4	.....	.....	.....	.....	.....	1	3	1	2	0	8	3	10	0	28	.....	.....	.....	2·05	−1·24	0·50	12	16	0	0	0
*a*Durham	44 10	80 50	.....	28 57	28·92	28 23	0 69	12 0	− 6·0	18	32 0	18	− 9 0	14	16·5	.....	.....	.....	8	10	2	4	0	9	11	27	1	30	0	84	.....	.....	.....	7·20	+3 27	0·99	18	9	0	0	0
Toronto	43 39	79 17	350	29·99	30 34	29 66	0 68	16 8	− 5·6	60	34 0	25	− 2·4	10	15 4	12·7	80	6	1	60	19	16	0	2	137	196	241	1	672	12·9	24·5	4 N	.....	.....	.....	.....	.....	.....	.....	.....
Welland	43 50	79 17	.....	.....	.....	.....	.....	16·7	− 3·4	13	34 0	28	− 7 0	10	12·2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7·60	+2·02	2·10	13	15	0	0	2
Peterborough	44 17	78 19	722	.....	.....	.....	.....	10 8	− 6·8	29	35 0	18	−15·0	24	19·1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·74	−0·26	1·10	7	21	0	0	0

	° ′	° ′		in.	in.	in.	in.	°	°	°																				in.	in.	in.				
ONTARIO—(*Continued.*)																																				
Lindsay	44 20	78 45	872	29·96	30·34	29·56	0·78	11·0	— 5·3	19 31·0	18	—12·7	10	19·7	.....	.....	5	1	8	2	3	0	8	8	14	30	11	84	II	IV	12 NW	2·27	—0·66	1·00	9	17	0	0	0
Deseronto	44 11	77 4	264	.....	.....	.....	.....	15·1	— 3·2	16 33·6	17	—14·0	24	12·0	.....	.....	5	2	3	10	4	4	0	0	32	31	0	84	7·7	14·9	3 E	0·81	—1·94	0·40	4	19	0	0	0
Lakefield	44 25	78 15	.....	.....	.....	.....	.....	8·4	— 5·4	13 29·0	18	—17·0	25	16·7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·55	+0·32	1·10	6	21	0	0	0
Ridgetown	42 26	81 55	.....	.....	.....	.....	.....	13·2	—10·2	12 33·0	18	— 8·0	23	19·9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·05	—0·92	0·50	9	17	0	0	0
Kingston	44 13	76 29	285	29·91	30·34	29·50	0·84	14·9	— 3·1	27 34·7	18	— 6·4	7	16·4	.....	.....	6	8	2	6	0	1	1	6	19	18	3	56	.....	19·2	4 N	1·09	—1·45	0·32	14	9	0	0	0
Clontarf	45 23	77 9	.....	.....	.....	.....	.....	10·4	— 3·9	13 34·0	18	—18·0	28	20·8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·50	—1·15	1·20	7	18	0	0	0
Bancroft	45 1	77 50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ottawa	45 26	75 42	294	29·87	30·43	29·47	0·96	11·4	— 1·2	18 34·0	18	—10·0	22	18·9	.....	.....	4	5	3	5	2	1	0	6	33	6	0	56	.....	IV	13 N	0·80	—1·89	0·40	4	22	0	0	0
Bissett	46 12	77 55	557	29·97	30·36	29·54	0·82	5·4	— 4·8	24 32·0	18	—30·0	28	28·5	.....	.....	6	3	1	0	0	0	0	1	5	20	29	56	.....	12·7	5 NW	0·21	—1·79	0·07	9	19	0	0	0
Mattawa	46 15	78 41	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cartier	46 40	80 50	.....	.....	.....	.....	.....	5·4	— 0·4	10 30·0	17	—21·0	3	—	.....	.....	.....	.....	14	3	15	21	15	0	16	0	0	84	.....	.....	.....	0·40	—1·23	0·20	2	26	0	0	0
St. Anne's	43 56	79 11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stouffville	43 56	79 11	.....	.....	.....	.....	.....	14·1	—	7 49·0	19	— 7·0	24	19·2	.....	.....	.....	.....	32	5	3	0	0	6	14	24	0	84	.....	.....	.....	1·66	—	0·50	11	15	0	0	0
Sarnia	42 59	82 29	586	.....	.....	.....	.....	16·0	—	6 37·0	25	— 9·0	8	—	.....	.....	.....	.....	12	0	6	0	8	14	11	8	25	84	.....	.....	.....	1·10	—0·98	0·90	2	26	0	0	0
Millbrook	44 8	78 32	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stratford	43 23	81 10	1191	30·05	30·42	29·66	0·76	12·5	— 7·8	34 32·0	25	— 8·0	10	15·3	.....	.....	.....	.....	1	0	4	0	2	18	13	15	3	56	.....	.....	.....	1·62	—1·27	0·60	10	12	0	0	1
Lucknow	43 56	81 30	.....	.....	.....	.....	.....	14·4	— 5·7	14 30·4	18	— 4·0	23	15·4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3·32	+0·35	0·60	20	6	0	0	0
White River	48 36	85 16	1252	30·11	30·70	29·57	1·13	— 1·2	— 2·9	12 31·2	28	—40·5	14	33·8	.....	.....	6	8	41	39	39	27	3	35	25	73	410	672	1·4	VII	28 S	0·87	—0·75	0·20	13	14	0	0	0
Port Arthur	48 27	89 12	644	.....	30·74	29·51	1·23	5·6	— 0·9	20 38·0	28	—20·0	5	20·3	.....	.....	5	3	35	21	49	13	21	102	203	187	41	672	5·0	10·0	11 E	0·06	—0·84	0·06	1	26	0	0	0
Stony Creek	43 33	79 45	292	.....	.....	.....	.....	18·2	— 5·4	17 37·0	26	— 2·0	10	17·2	.....	.....	4	1	5	3	2	2	3	32	21	8	8	84	III	VI	4 N	1·49	—2·17	0·80	4	22	0	0	0
*Otonabee	44 20	78 18	.....	.....	.....	.....	.....	13·8	—	5 33·0	17	— 5·0	13	—	.....	.....	.....	.....	3	4	3	1	6	7	37	29	0	84	.....	.....	.....	1·30	—	0·65	3	25	0	0	0
Windsor	42 19	83 2	.....	.....	.....	.....	.....	16·5	— 8·3	24 23·6	19	— 3·6	15	15·1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·85	+0·55	1·05	8	14	0	0	0
Alton	43 51	80 5	1250	.....	.....	.....	.....	11·2	— 6·2	13 29·8	19	—10·8	8	19·3	.....	.....	3	1	1	0	4	0	2	25	36	7	0	84	.....	IV	9 E	1·45	—0·86	0·50	10	18	1	0	0
aGuelph	43 33	80 16	.....	.....	.....	.....	.....	12·5	— 5·3	13 31·0	26	— 7·0	24	16·0	.....	.....	.....	.....	1	0	2	0	0	3	17	3	0	26	.....	.....	.....	0·98	—0·93	0·40	7	18	0	0	4
*North Bruce	44 28	81 25	.....	.....	.....	.....	.....	16·8	— 3·1	12 32·0	17	— 2·0	6	—	.....	.....	.....	.....	5	11	7	4	9	24	19	4	1	84	.....	.....	.....	3·65	—1·61	0·30	21	6	0	0	0
Collingwood	44 30	80 15	.....	.....	.....	.....	.....	15·4	— 3·4	10 29·6	18	— 9·0	12	12·4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Collingwood (2)	44 29	80 15	.....	.....	.....	.....	.....	10·6	—	6 30·0	26	— 6·0	13	14·1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8·20	0	0	0
Rockly	44 28	80 36	1339	.....	.....	.....	.....	8·5	—	1 27·0	18	—22·0	10	16·6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3·60	—	0·90	17	7	0	0	0
Whiteside	45 0	79 20	.....	.....	.....	.....	.....	10·2	— 4·3	17 32·5	16	—17·5	10	22·5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·50	—1·35	0·30	7	21	0	0	0
Spruceedale	45 30	79 40	.....	.....	.....	.....	.....	7·6	— 3·2	15 35·0	18	—28·0	28	29·5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·59	—0·91	1·20	7	21	0	0	0
Orillia	44 34	79 24	.....	.....	.....	.....	.....	13·7	—	9 32·0	16	—13·0	9	32·3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·77	—0·60	0·90	10	15	0	0	0
Coldwater	44 42	79 40	.....	.....	.....	.....	.....	8·2	— 5·9	15 31·4	17	—30·0	10	21·8	.....	.....	1	5	1	12	0	5	3	29	0	56	.....	.....	.....	.....	.....	2·92	+0·15	1·43	9	19	0	0	0
Beatrice	45 8	79 20	.....	.....	.....	.....	.....	9·3	— 4·8	15 30·0	16	—17·0	28	21·5	.....	.....	5	4	4	1	1	3	2	10	1	30	32	84	II	IV	14 NW	1·10	—1·50	0·20	8	16	0	0	0
Gravenhurst	44 55	79 20	770	.....	.....	.....	.....	9·6	— 6·0	19 31·0	16	—19·0	10	22·8	.....	.....	4	1	7	2	6	5	9	6	8	16	25	84	II	V	13 N	1·20	+1·28	0·25	9	18	0	0	0
Haliburton	45 1	78 28	.....	.....	.....	.....	.....	9·0	— 5·0	12 38·0	16	—26·0	7	27·3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·03	—0·94	0·40	11	16	0	0	0
*Point Clark	44 5	81 44	595	.....	.....	.....	.....	18·8	— 2·5	28 40·0	28	— 3·0	22	—	.....	.....	5	0	17	3	7	3	10	30	8	6	0	84	IV	X	20 N	2·80	+0·17	0·60	9	19	0	0	0
Birnam	43 2	81 55	.....	.....	.....	.....	.....	13·5	— 7·0	18 34·5	25	—14·0	14	17·9	.....	.....	.....	.....	2	2	4	0	1	14	14	14	5	56	.....	.....	.....	3·25	+0·22	0·97	13	15	0	0	0
London	42 59	81 12	808	30·03	30·41	29·62	0·79	13·7	— 7·9	17 33·0	25	—11·0	24	18·4	12·0	86	5	4	1	0	3	4	2	29	33	21	0	84	I	II	3 SE	2·82	—0·75	0·59	16	8	0	0	0
Port Stanley	42 40	81 13	592	30·04	30·39	29·67	0·72	15·4	— 7·0	27 33·8	25	—10·1	14	18·1	.....	.....	7	8	52	0	0	0	27	83	146	54	10	672	11·9	20·7	24 SW	2·66	—0·55	0·44	18	10	0	0	0
Woodstock	42 8	80 47	980	30·01	30·60	29·66	0·94	14·7	— 6·4	28 33·0	25	— 4·0	8	16·1	13·0	87	5	0	82	20	24	0	31	32	360	94	29	672	11·4	21·0	12 NW	1·52	—0·84	0·50	7	21	0	0	0
Port Dover	42 47	80 13	635	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·80	—0·90	0·50	8	20	0	0	0
Pelee Island	41 50	82 38	.....	.....	.....	.....	.....	16·6	— 9·5	22 31·5	18	— 2·0	14	9·6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·20	—1·58	0·40	9	19	0	0	0
St. George	43 14	80 12	722	.....	.....	.....	.....	17·5	— 3·5	21 33·0	18	— 4·0	10	16·1	.....	.....	5	5	15	6	0	0	0	1	49	13	0	84	.....	.....	.....	1·95	—0·91	0·60	9	19	0	0	0
Paris	43 12	80 25	840	.....	.....	.....	.....	14·5	— 7·2	11 35·0	18	—12·0	10·24	23·1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·85	—0·65	0·50	7	21	0	0	0
St. Mary's	43 15	81 11	1040	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Biscotasing	47 22	82 8	.....	.....	.....	.....	.....	6·1	—	6 25·0	7·27	—20·0	11	—	.....	.....	.....	.....	14	0	0	0	0	6	21	43	0	84	.....	.....	.....	0·10	—	0·10	2	26	0	0	0
Bloomfield	43 59	77 21	.....	.....	.....	.....	.....	13·8	—	5 32·0	18	—13·0	24	16·6	.....	.....	.....	.....	9	7	1	0	0	2	5	27	5	56	.....	.....	.....	1·30	—	0·80	4	23	0	0	0
Calvin	46 15	78 48	.....	.....	.....	.....	.....	8·0	—	6 31·2	18	—20·5	7	19·1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·45	—	0·15	4	23	0	0	0
Agincourt	43 47	79 16	.....	.....	.....	.....	.....	12·0	—	6 32·5	26	— 7·5	10	17·2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·95	—	0·40	5	19	0	0	0
Pickering	43 39	79 4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hamilton	43 16	79 54	303	.....	.....	.....	.....	16·9	— 7·2	25 34·9	25	— 0·3	9	14·5	.....	.....	.....	.....	2	3	3	0	1	16	23	8	0	56	.....	.....	.....	1·04	—1·66	0·60	3	20	0	0	1
Port Hope	43 56	78 20	.....	.....	.....	.....	.....	14·1	—	4 32·0	18	— 0·6	6	16·4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·60	—2·07	0·70	5	23	0	0	0
Kirkmount	43 42	78 42	.....	.....	.....	.....	.....	8·0	—	4 31·0	17	—23·0	8	22·8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·05	—	0·50	7	21	0	0	0
Cockburn Island	45 57	83 18	610	.....	.....	.....	.....	8·9	—	4 29·0	4·17	—13·0	1	26·9	.....	.....	.....	.....	6	1	6	1	7	1	10	16	8	56	.....	.....	.....	0·70	—	0·30	5	23	0	0	0
Chatham	42 23	82 12	595	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dalhousie Mills	45 20	74 29	.....	.....	.....	.....	.....	9·1	—	2 35·0	19	— 9·0	28	14·6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Meaford	44 37	80 37	.....	.....	.....	.....	.....	15·4	—	2 33·0	18	— 1·0	8	14·7	.....	.....	.....	.....	6	1	0	4	1	17	16	5	6	56	.....	.....	.....	3·65	—	0·60	17	11	0	0	0
Ruthven	42 3	82 41	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Listowel	43 44	80 58	.....	.....	.....	.....	.....	12·2	—	7 33·0	26	— 5·0	23	15·6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·50	—	0·80	9	19	0	0	0
Bruce Mines	46 18	83 55	.....	.....	.....	.....	.....	9·6	—	3 33·0	3	—18·0	1	23·3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·70	—	0·30	4	24	0	0	0
Rat Portage	49 48	94 32	1087	.....	.....	.....	.....	2·8	—	2 29·5	14	—22·9	5	20·2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·55	—	0·25	5	23	0	0	0
Dunnville	42 54	79 39	.....	.....	.....	.....	.....	16·4	—	2 35·5	18	— 2·6	23	16·2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Heron Bay	48 40	87 10	.....	.....	.....	.....	.....	6·4	— 0·5	10 28·0	28	—22·0	5	—	.....	.....	.....	.....	46	1	0	0	0	0	22	3	12	84	.....	.....	.....	0·50	—1·00	0·40	2	26	0	0	0
Sturgeon Falls	46 16	79 54	.....	.....	.....	.....	.....	9·3	—	30·2	18	—23·4	7	19·9	.....	.....	.....	.....	5	5	3	2	14	7	10	3	1	50	.....	.....	.....	0·15	—	0·15	1	27	0	0	1
QUEBEC:—																																				
Montreal	45 30	73 35	187	29·83	30·39	29·42	0·98	12·5	— 3·0	27 29·5	19	— 4·0	7	11·7	.....	81	.....	.....	27	0	1	4	34	85	425	96	0	672	19·6	35·7	7 W	1·97	—1·10	0·75	11	15	0	0	1
Richmond	45 40	72 8	435	.....	.....	.....	.....	7·2	— 6·2	23 33·5	27	—23·0	4	20·6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·10	—0·90	0·80	7	21	0	0	0
Brome	45 10	72 36	.....	.....	.....	.....	.....	7·6	— 6·7	21 30·0	26	—24·0	3	15·8	.....	.....	4	8	0	1	3	0	15	25	40	0	0	84	.....	.....	.....	2·10	+0·29	0·50	9	15	0	0	0
Quebec	46 48	71 13	296	29·73	30·28	29·24	1·04	11·3	— 1·0	27 30·0	17	— 5·5	22	14·3	.....	.....	6	8	8	25	5	0	0	0	323	213	87	11	672	16·2	30·0	15 SW	1·16	—2·11	0·66	9	14	0	0	0
Chicoutimi	48 25	71 5	150	.....	.....	.....	.....	4·7	— 2·6	21 30·5	18	—25·9	4	23·9	.....	.....	8	12	0	2	0	0	0	5	0	71	6	84	IV	VIII	13 NW	1·87	—0·41	0·30	14	14	2	0	0
Father Point	48 31	68 19	20	29·59	30·08	28·93	1·15	14·5	+ 2·7	27 32·0	17	— 1·5	1	23·4	.....	.....	8	16	8	2	2	0	2	11	15	15	1	56	.....	37·0	8 NW	3·17	+0·96	0·70	19	9	0	0	0
*Cape Chatte	49 0	66 45	.....	.....	.....	.....	.....	16·1	+ 2·6	12 32·0	16	6·0	8	—	.....	.....	.....	.....	0	2	6	0	0	0	24	35	1	16	84	.....	.....	.....	.....	.....	.....	.....	.....
Bicquette	48 25	68 53	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JANUARY, 1901.

a. Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	Pressure.				Temperature.							Mean temperature of Dewpoint.	Mean relative Humidity.	Mean amount of Cloud.	No. of days completely clouded.	Direction of Wind from									Velocity of Wind			Precipitation.						
				Mean reduced.	Highest.	Lowest.	Range.	Mean.	Difference from average.	Years observed.	Highest.	Date.	Lowest.	Date.	Mean daily range.					N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	C.	Total number of hours.	Mean miles per hour.	Highest day's velocity.	Date and direction from	Amount.	Difference from Average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days.	No. of Auroras.	No. of Thund. storms	No. of Fogs.
	° ′	° ′	.....	in.	in.	in.	in.																													
QUEBEC—(*Continued.*)																																				
*Cape Magdalen	49 16	65 20	.....	.....	.....	.....	.....	19·2	+ 7·8	18	32 0	18	5·0	23	—	.....	.....	.....	.....	0	4	0	0	10	0	0	59	18	84	.....	.....	.....	4·72	+2·34	0·64	19	9	0	0	0
Anticosti, W. Pt	49 52	64 32	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Anticosti, S.-W. Point	49 24	63 35	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Abitibi	48 43	79 22	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Anticosti, E. Pt	49 5	61 42	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bird Rocks	47 51	61 8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sherbrooke	45 24	71 55	.....	.....	.....	.....	.....	11·0	—	1	39·0	18	—16·4	3	20·7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·79	—	0·54	15	13	0	0	0
Percé	48 31	64 12	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Agathe des Monts	.....	.....	.....	7·1	—	.....	.....	2	25·0	20	—15·0	6	17·3	.....	.....	.....	.....	.....	1	0	1	0	0	0	15	9	0	26	.....	.....	.....	0·30	—	0·20	3	22	0	0	0
(*a*) St. Anne de la Pocatière	47 23	70 2	.....	29·46	29·97	29·10	0·87	13·7	—	2	32·0	17	—2·2	4	14·4	.....	.....	.....	6	6	2	2	0	2	4	30	4	7	5	50	II	V	10 NW	2·65	—	1·03	12	16	1	0	0
NEW BRUNSWICK:																																						
Fredericton	45 57	66 36	164	29·57	30·06	29·01	1·05	16·6	+ 0·6	28	39 9	5	—14·3	2	18 9	9·0	78	6	8	1	5	1	0	2	1	10	48	2	70	13·9	27·3	8 NW	3·28	+0·78	1·20	11	14	0	0	0
Chatham	47 3	65 29	21	29·49	30·01	28·89	1·12	17·4	+ 4·7	27	38·0	6	—18·0	23	17·3	.....	.....	7	9	0	1	3	0	0	0	33	9	10	56	.....	11·4	7 NW	3·16	0·66	1·20	15	12	0	0	0
Grand Manan	44 47	66 46	49	.....	30·09	29·04	1·05	21·5	— 2·3	17	38·5	27	— 8·0	9	13 4	.....	.....	5	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	35·0	7 NW	2·07	—2·90	0·70	7	18	0	0	0
*Point Lepreaux	45 4	66 28	30	.....	.....	.....	.....	21·1	— 1·2	22	35·0	5	— 8·0	4	—	.....	.....	5	4	13	7	1	0	1	2	6	42	0	72	II	IV	8 NW	1·20	—3·14	1·20	1	18	0	0	0
St. John	45 17	66 4	70	29·57	30·08	29·04	1·04	19·5	— 1·0	17	38·7	18	3·1	23	12·6	15·3	75	.....	.....	71	42	1	3	3	79	24	432	11	672	16·9	24·2	6 NW	0·98	—2·75	0·58	10	18	0	0	1
Dalhousie	48 4	66 22	39	.....	.....	.....	.....	.....	.....	.....	38·0	9	—10·0	33	—	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5 10	+3 02	2·00	10	18	0	0	0
St. Stephen	45 12	67 16	35	.....	.....	.....	.....	11·8	—	4	37·3	18	—17·2	22	21·0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 60	—	1·30	3	23	0	0	0
Moncton	46 9	64 45	.....	19·4	—	4	41·0	19	—13·0	23	15·7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 97	—	0·40	9	19	0	0	1
Sussex	45 38	65 38	.....	15·5	—	4	37·0	26	—19·0	23	14·8	.....	.....	.....	.....	0	1	1	0	0	0	0	0	4	18	4	28	.....	.....	.....	3·55	—	1·40	13	15	0	0	0
Bathurst	47 39	65 42	.....	29·65	30·11	28·78	1·33	18·3	+ 3·3	25	39·0	16	2·0	2-28	17·9	.....	.....	8	10	4	11	5	2	0	0	4	22	15	63	II	VI	24 NE	4·35	—2·24	1·20	11	16	0	0	0
NOVA SCOTIA:																																						
Halifax	44 39	63 36	97	29·49	30·08	28·88	1·20	26·1	+ 3·4	27	44·6	18	11·0	12	11·6	.....	.....	8	11	263	8	23	1	15	2	253	67	40	672	11·8	28·0	6 N	0·97	—4 19	0·30	13	13	0	1	1
Sydney	46 10	60 10	55	.....	30·13	28·59	1·54	27·1	+ 7·5	28	42·5	1	3·5	23	12·5	.....	.....	9	19	0	66	9	0	0	66	193	168	170	672	4·0	18·0	24 SE	6·13	+2·04	1·46	11	17	0	0	9
Truro	45 22	63 18	73	29·48	30 06	28·84	1·22	23·1	+ 2·8	27	40·0	26	1·0	23	13·8	.....	.....	9	17	3	9	3	0	6	14	41	7	1	84	II	IV	6 NW	2·33	—1 29	0·53	19	5	0	0	1
Yarmouth	43 50	66 2	65	.....	30·08	29 02	1·06	24·7	— 1·5	21	39·8	4	10 8	23	9·4	.....	.....	8	12	44	21	31	5	22	14	84	447	4	672	13·7	26 7	9 NW	3·05	—1 69	1·08	16	9	0	0	0
Pictou	45 42	62 41	.....	22·9	+ 3·1	23	39·0	26	7·0	23	10·3	.....	.....	.....	.....	.....	.....	.....	.....	2	1	2	2	0	10	15	42	10	84	III	VII	3 NW	3·25	—1 04	0·60	8	21	0	0	0
Port Hastings	45 49	61 22	45	21·0	+ 2·2	10	37·0	20	8·0	10	10·4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3·31	+0·22	0·90	4	24	0	0	0
*Whitehead	45 15	61 8	20	26·4	+ 3·2	17	37·0	4	15·0	9	—	.....	.....	.....	.....	.....	.....	.....	.....	17	3	6	0	0	22	12	21	0	84	.....	.....	.....	1 39	—1 60	0 40	4	24	0	0	4
*Sable Island, E. Pt	43 58	59 46	25	30·3	+ 1·3	18	47·0	24	21·0	8	—	.....	.....	.....	.....	.....	.....	.....	.....	11	3	2	2	2	6	14	36	8	84	.....	.....	.....	3 21	+0·23	1·40	5	12	0	0	0
Sable Island, M. station	43 57	60 24	25	29·42	30·17	28·67	1·50	29·9	—	3	45·5	1	19·0	9	8·2	.....	.....	9	20	76	40	29	9	15	21	289	175	18	672	21·9	45 3	24 SW	3 78	—	0·95	13	13	0	0	2
Parrsboro'	45 24	64 19	40	.....	.....	.....	.....	21·2	—	5	38·3	25	— 4·5	23	14·6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2 35	—	0·60	12	16	0	0	0
Wolfville	45 7	64 20	..	.....	.....	.....	.....	21·2	—	2	40 0	27	6 0	12	13 4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 50	—	0 40	8	22	0	0	0
Bridgetown	43 49	65 16	.....	.....	.....	.....	.....	21·7	—	1	39 0	27	—10 0	24	12 1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4 44	—	0·90	11	17	0	0	0
P. E. ISLAND:																																						
Charlottetown	46 14	63 10	38	29·28	30·07	28·81	1·26	21·8	+ 4 1	25	39 4	1	1·3	23	21 8	.....	.....	8	15	69	32	0	12	8	10	134	173	234	672	5·9	19·7	3 NW	2 08	—0·98	0·40	15	12	0	0	3
Summerside	46 25	63 51	.....	.....	.....	.....	.....	21·3	—	3	37 0	1-19	2·2	23	11·6	.....	.....	.....	.....	5	2	0	0	5	3	19	21	1	56	.....	.....	.....	2·67	—	0·60	11	17	0	0	0
Hamilton	46 25	63 48	.....	.....	.....	.....	.....	20 3	—	3	36·0	1	5.0	24	12 7	.....	.....	.....	.....	4	2	1	0	1	3	7	10	0	28	.....	.....	.....	2·70	—	0 70	8	20	0	0	0
Murray River	.....	.....	35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
NEWFOUNDLAND:																																						
St. John's	47 34	52 42	125	29·29	30 05	28·50	1·55	31·9	+ 9·7	29	40·0	3	12·0	24	7·5	.....	.....	8	16	20	7	2	2	15	1	7	2	0	56	.....	24·5	3 NE	5·22	+0 31	1·20	17	11	0	0	9
Channell	47 34	59 8	20	.....	.....	.....	.....	31·1	+11·5	14	47·0	3	11·0	24	8·1	.....	.....	8	14	1	9	7	12	5	2	34	10	4	84	III	VI	25 W	3·45	+0·76	1·25	5	23	0	0	0
*Cape Norman	51 38	55 52	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Amour Point	51 28	56 51	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Point Rich	50 42	57 25	35	.....	.....	.....	.....	29·8	+17·7	17	42·0	2	9·0	28	—	.....	.....	.....	.....	7	21	23	3	7	11	7	5	0	54	.....	.....	.....	0·80	—1·86	0·25	6	22	0	0	1
BERMUDA:																																						
Prospect	37 20	64 50	151	29 90	30 28	29 29	0·99	59·5	— 2·3	10	70 4	23	46·8	14	9·7	.....	...	7	6	0	0	0	0	0	9	13	31	3	56	.....	28·0	13 NW	5·36	+0·92	1·66	22	3	0	2	0

PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &c., DURING FEBRUARY, 1901.

STATIONS.	Rainfall.					Snowfall.				Remarks.
	Amount in inches.	No. of Days ·01 or Over.	No. of Fair Days.	Heaviest Fall in Month.	Date.	Amount in inches.	No. of Days.	Heaviest Fall in Month.	Date.	
British Columbia—										
Kuper Island	4 56	14	14	1·20	28	4 1	2	3 8	23	
Caulfields	7 21	13	15	1 46	28	...	...	...	...	
Royal Oak	4 88	13	14	0 76	27	1 0	3	1 0	19	
Nanaimo	4 27	8	16	1 10	25	4 0	4	2·0	22	
Vancouver	6 31	11	17	2 10	28	...	...	...	...	
Goldstream Lake	8 56	9	10	1 93	24	25·0	9	6·5	18	
Port Essington	9 57	12	16	3 28	13	...	...	...	...	
Naas Harbour	6 35	4	19	2·05	12	13 0	5	4 0	14	
N. W. Territories—										
Eastern Beaver Hills	...	...	...	...	...	5·4	8	1 5	6	Warm, chinook, 26th to 28th.
Cochrane	...	...	...	...	...	9·0	6	2 0	9	7th, blizzard; 11th, chinook.
Stirling	...	...	...	...	...	4 0	3	4 0	15	
Strathcona	0 07	1	16	0 07	28	8·7	13	2 5	7	4th 30° below zero.
Weyburn	...	...	...	...	...	8·1	6	3·0	19	16th, blizzard.
Innisfail	...	...	...	...	...	7 5	8	5 0	3	
Saltcoats	...	...	...	...	...	13·0	3	12 0	17	
N. E. Beaver Hills	...	...	...	...	...	5 8	8	1 5	7	28th, snow nearly all gone.
Coutts	...	...	...	...	...	11·5	6	5·0	20	
Didsbury	...	...	...	...	...	13 0	8	4·0	7	
Manitoba—										
Norquay	...	...	...	...	...	11·3	6	6 0	18	
Ontario—										
Wesport	...	...	...	...	...	12 1	8	3·5	9	
Elgin	...	...	...	...	...	22 0	4	10 0	9	
Parma	...	...	...	...	...	36·0	6	10·0	25	4th, N.E. blizzard.
Sunshine	...	...	...	...	...	28 0	16	7 0	11–12	
Westminster	...	...	...	...	...	21·0	11	12 0	4–5	
Scarboro	...	...	...	...	...	11·5	20	4 5	9	
Dutton	...	...	...	...	...	9 0	13	4 0	13	
Kitley	...	...	...	...	...	7 3	6	2·0	26	
Ursa	...	...	...	...	...	24 0	9	6 0	3	8th, 14° below zero.
Uxbridge	...	...	...	...	...	11·5	4	6·0	9	
Croydon	...	...	...	...	...	12 0	3	5·0	1	
Deer Park	...	...	...	...	...	11·5	10	5 0	3	
Jermyn	...	...	...	...	...	13 0	3	7 0	9	
Orangeville	...	...	...	...	...	19·6	14	9 1	10	
Montague	...	...	...	...	...	7 0	4	3·5	4	
Wooler	...	...	...	...	...	16 0	5	6 0	1	
Aurora	...	...	...	...	...	16 8	9	6 0	10	
Wiarton	...	...	...	...	...	22·5	10	3·0	1	
Georgetown	...	...	...	...	...	18·6	20	5 5	4	
Goderich	...	...	...	...	...	24 0	10	10 0	10	
Lyndedoch	...	...	...	...	...	5 5	6	3·0	20	
Cayuga	...	...	...	...	...	16·5	15	6 2	3	
Midland	...	...	...	...	...	8 0	8	3 0	9	
Huntsville	...	...	...	...	...	10·0	5	3·5	25	
Oliver's Ferry	...	...	...	...	...	13·0	6	4·0	4	
Emsdale	...	...	...	...	...	9·8	9	3 5	24	
Arden	...	...	...	...	...	14 0	7	3 0	4	
Port Burwell	...	...	...	...	...	18 5	12	4·0	23	12th, blizzard.
Wyoming	...	...	...	...	...	19 0	8	8 0	4	
Lansdowne	...	...	...	...	...	18 0	8	4 0	25	
Dealtown	...	...	...	...	...	9 7	11	4 0	3	
Princeton	...	...	...	...	...	19·0	15	8·0	4	
Ennismore	...	...	...	...	...	15 0	3	8 0	9	
Providence Bay	...	...	...	...	...	17·3	10	3·0	12	
New Brunswick—										
Point Escuminac	...	...	...	...	...	27·3	9	6 2	7	
Nova Scotia—										
Port Morien	0 67	2	8	0 47	1	22·5	8	6·0	13	

Aurora Recorded :—

Where the class of aurora is noted by the observer, it is given, (I) being the brightest, (IV) the feeblest in brilliancy.

6. Barnardo, IV ; Channel Island, IV.
7. Alton, I.
9. Barnardo, IV.
10. Minnedosa, II ; Barnardo, IV.
11. Bowsman, IV ; Red Deer, IV.
12. Minnedosa, I ; Chicoutimi, Bowsman, IV.
13. Qu'Appelle.
16. Qu'Appelle.
18. Red Deer, II ; Stratheona.
19. Swift Current, IV ; Moose Jaw. Bowsman, IV ; Athabasca Landing, IV.
20. Minnedosa, I.
21. Red Deer, III.
22. Haileybury, IV ; St. Anne de la Pocatière, IV ; Chicoutimi.
26. Barnardo, IV.
27. Minnedosa, II.

PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY DURING WHICH THE SUN WAS ABOVE THE HORIZON IN THE MONTH OF FEBRUARY, 1901.

	Hours Ending															
	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.
Victoria			0·00	0·03	0·27	0·43	0·59	0·58	0·52	0·53	0·52	0·47	0·23	0·00		
Kuper Island																
Agassiz			0·00	0·02	0·12	0·36	0·38	0·51	0·43	0·38	0·33	0·28	0·15	0·01		
Battleford			0·07	0·21	0·28	0·38	0·51	0·48	0·58	0·44	0·43	0·40	0·08	0·00		
Indian Head			0·00	0·01	0·16	0·42	0·58	0·59	0·58	0·58	0·65	0·26	0·02	0·00		
Brandon			0·14	0·28	0·49	0·55	0·59	0·55	0·66	0·63	0·53	0·14	0·00	0·00		
Winnipeg			S	0·16	0·33	0·50	0·53	0·50	0·55	0·58	0·58	0·47	0·29	0·00		
Durham			0·00	0·15	0·29	0·29	0·32	0·29	0·18	0·25	0·25	0·25	0·11	0·05		
Woodstock			0·00	0·04	0·15	0·27	0·31	0·39	0·39	0·38	0·38	0·36	0·23	0·02		
Toronto			0·00	0·04	0·50	0·61	0·72	0·68	0·56	0·39	0·43	0·49	0·58	0·01		
Lindsay			0·00	0·05	0·28	0·59	0·58	0·58	0·73	0·66	0·63	0·48	0·25	0·07		
Barrie			0·00	0·21	0·33	0·44	0·49	0·56	0·53	0·56	0·48	0·30	0·06	0·00		
Kingston			0·00	0·14	0·34	0·43	0·41	0·50	0·57	0·60	0·53	0·42	0·01	0·00		
Ottawa			0·00	0·10	0·32	0·50	0·50	0·57	0·59	0·54	0·57	0·48	0·15	0·00		
Montreal			0·00	0·12	0·38	0·45	0·49	0·52	0·48	0·43	0·44	0·43	0·12	0·00		
Fredericton			0·15	0·28	0·37	0·42	0·54	0·51	0·47	0·46	0·40	0·28	0·01	0·00		

	Victoria.	Kuper Island.	Agassiz.	Battleford.	Indian Head.	Brandon.	Winnipeg.	Durham.	Woodstock.	Toronto.	Lindsay.	Barrie.	Kingston.	Ottawa.	Montreal.	Fredericton.
Mean proportion for month (*Constant sunshine being 1*)	0·41		0·29	0·37	0·37	0·43	0·43	0·22	0·28	0·49	0·47	0·39	0·39	0·42	0·44	0·37
Difference from average	+ 0·18		+ 0·10	− 0·02	+ 0·03	− 0·03	− 0·04	—	− 0·01	+ 0·13	+ 0·12	+ 0·11	+ 0·03	—	+ 0·02	− 0·07
Maximum daily amount	0·92		0·82	0·95	0·73	0·91	0·92	0·81	0·84	0·87	0·92	0·76	0·91	0·90	0·99	0·91
Date	7		21	23	25	23	24	28	14	1	5	8	7	8	8	22
No. of days completely clouded	6		7	5	4	7	7	16	9	4	2	3	5	8	9	7

FORECASTS FOR FEBRUARY, 1901.

The forecasts issued by this office at 11 p.m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of predictions issued during the month was 914. These were divided as follows:—

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully	No. Partly	No. Not	Percentage
Manitoba	78	58	16	4	84 6
Lake Superior	90	70	12	8	84 4
Lower Lake Region	113	87	14	12	83 2
Georgian Bay	111	81	17	13	80 6
Ottawa Valley	97	81	10	6	88 7
Upper St. Lawrence	97	76	13	8	85 1
Lower St. Lawrence	107	84	13	10	84 6
Gulf	106	81	14	11	83 0
Maritime Provinces	115	86	17	12	82 2
Total	914	704	126	84	83 9

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART,
Director.

Meteorological Office, Toronto,
26th March, 1901.

General Summary for the Year 1900, Fort Simpson, Mackenzie River—Latitude, N. 61° 52′; Longitude, W. 21° 42′. Height above Sea, —— feet.

Month.	Temperature.							Rain.		Snow.		Gales.	Fogs.	Auroras.	Thunder Storms.
	Mean Max.	Mean Min.	Mean Daily Range	Max.	Min.	Mthly Range.	Mthly Mean.	Amt.	Days.	Amt.	Days.				
	°	°	°	°	°	°	°	in.		in.					
January	−16·2	33·5	17·3	5·0	−51·0	56·0	−24·8	0·00	0	10·2	12	....	0	....	....
February	−9·2	−33·5	24·3	14·0	−50·5	64·5	−21·4	0·00	0	6·5	3	....	1	....	....
March	12·8	−17·4	30·2	39·0	−50·0	89·0	− 2·3	0·00	0	3·5	2	....	1	1	..
April	41·1	17·8	23·3	60·0	5·0	55·0	29·5	R	....	4·4	3	....	2	....	....
May	52·6	35·2	17·4	66·0	27·0	39·0	43·9	3·08	15	.....	.....	1	..	....	..
June	69·3	45·3	24·0	80·0	27·0	53·0	57·3	1·53	8	.....	...	....	1	....	....
July	69·4	45·7	23·7	79·5	31·5	48·0	57·6	0·57	7	.....	.....	....	2	....	....
August	65·0	41·1	20·9	78·0	27·0	51·0	54·5	0·13	1	.....	.....	..	.....	....	...
September	56·8	34·7	22·1	71·0	23·0	48·0	45·7	1·93	4	*	1	...	.....	....	....
October	29·0	19·2	9·8	40·0	3·0	37·0	24·1	0·45	1	10·0	6	...	.....	4	....
November	5·4	− 8·8	14·2	23·0	−29·0	52·0	1·7	0·00	0	8·0	5	...	.....	....	....
December	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Year	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

MONTHLY and Annual Summaries for the Year 1900, Norway House, North-West Territories—Latitude, N. 53° 58′; Longitude W. 97° 52′. Height above Sea, 728 feet.

MONTH.	PRESSURE AT 32°.			TEMPERATURE.								RELATIVE HUMIDITY				PRESSURE OF VAPOUR.				CLOUDINESS.			PRECIPITATION.	
	Monthly Mean.	Extremes.		Mean.						Extremes.														
		Max.	Min.	8 a.m.	p.m.	6·28 p.m.	Max.	Min.	Mthly	Max.	Min.	8 a.m.	p.m.	6·28 p.m.	Mean.	8 a.m.	p.m.	6·28 p.m.	Mean.	8 a.m.	p.m.	6·28 p.m.	Mean.	Total.	Maximum in any 24 hours.
	in.	in.	Min.	°	°	°	°	°	—	°	°					in.	in.	in.	in.					in.	in.
January	29·176	29·58	28·46	8·3	...	6·1	2·1	16·8	7·3	25·0	—41·0	...	...	...	...	.....	.....	.....	.....	65	37	51	...	1·00	0·20
February....	29·163	29·59	28·59	15·0	...	10·1	1·8	20·2	9·2	14·3	—37·0	...	...	...	...	.....	.....	.....	.....	31	32	31	...	0·83	0·15
March	29·273	29·82	28·35	4·9	...	8·8	16·9	5·5	5·2	44·8	—33·5	...	...	...	...	.....	.....	.....	.....	61	41	51	...	2·29	1·20
April	29·241	29·93	28·55	36·2	...	42·1	52·6	27·7	40·2	92·9	7·0	...	...	...	...	.....	.....	.....	.....	38	50	44	...	0·02	0·02
May.....	29·126	29·50	28·64	47·8	...	53·2	64·2	36·4	50·3	91·0	21·7	...	...	...	...	.....	.....	.....	.....	35	35	35	...	1·50	0·30
June.....	29·058	29·35	28·42	59·2	...	63·2	70·1	47·7	58·9	85·7	29·0	...	...	...	...	.....	.....	.....	.....	41	41	43	...	1·52	0·58
July	29·003	29·34	28·60	62·2	...	66·1	72·6	51·5	62·1	85·5	41·0	...	...	...	...	.....	.....	.....	.....	58	44	51	...	2·88	0·55
August.....	29·074	29·36	28·69	60·3	...	63·7	71·1	52·0	61·6	86·0	39·5	...	...	...	...	.....	.....	.....	.....	59	45	52	...	2·68	0·83
*September..	29·106	29·53	28·49	48·4	...	50·1	57·6	41·6	49·6	72·0	22·0	...	...	...	...	.....	.....	.....	.....	66	57	62	...	....	1·40
October.....	29·074	29·61	28·40	40·3	...	41·6	49·4	34·0	41·7	62·0	23·5	...	...	...	...	.....	.....	.....	.....	70	58	64	...	2·18	0·55
November ..	29·246	29·59	28·84	8·5	...	12·4	19·0	3·5	11·2	38·5	—27·0	...	...	...	...	.....	.....	.....	.....	60	51	56	...	0·70	0·10
December...	29·133	29·67	28·37	0·3	...	4·0	....	4·6	2·2	31·0	—39·7	...	...	...	...	.....	.....	.....	.....	62	49	55	...	0·40	0·20
Year....	29·139	29·93	28·35	28·7	...	32·4	....	....	30·5	92·9	—41·0	...	...	...	...	.....	.....	.....	.....	54	45	50	.....	.....	1·40

* September, 7 days short.

MONTH.	NUMBER OF WINDS FROM									AVERAGE HOURLY FORCE.	MAXIMUM FORCE.	DIRECTION AT TIME OF MAXIMUM FORCE.	NO. OF GALES.	NUMBER OF DAYS									
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.					Clear.	Partly Cloudy.	Cloudy.	Precipitation ·01 in or over.	Snow.	Hail.	Fair.	Fog.	Thunder Storms.	Lightning Alone.	Aurora.
January.....	13	9	3	3	7	6	8	4	9	I	V	N.	3	8	15	8	9	10	....	21	0	0	0	3
February.....	7	2	0	1	8	1	17	6	14	II	VI	N.E.	2	17	6	5	10	12	....	16	0	0	0	7
March.....	17	9	1	4	5	5	5	6	10	II	VI	N.	6	11	10	10	11	11	....	20	0	0	0	8
April	4	12	6	5	13	4	4	1	6	II	V	N.W.	4	10	11	6	1	2	...	26	0	2	0	4
May.....	15	12	3	3	10	6	1	2	9	II	VIII	W.	11	17	9	5	9	2	....	21	0	3	0	4
June	7	7	7	5	9	12	4	4	5	II	VI	N.E.	9	12	11	7	8	1	....	19	0	1	1	0
July.....	14	3	4	6	7	9	9	5	5	II	VI	S.W.	7	9	15	7	14	.....	.....	16	0	2	0	3
August.....	5	11	14	4	9	3	6	1	9	II	V	N.E.	3	6	17	8	10	....	..	18	0	2	2	3
September.....	7	7	6	2	5	6	6	4	3	III	VII	N.	7	6	8	9	8	2	....	13	0	0	0	3
October.....	6	11	4	7	15	6	4	2	7	III	VII	S.	8	5	12	14	8	2	....	21	0	0	0	8
November.....	10	5	5	6	4	2	14	6	8	II	V	N.	2	8	13	9	9	13	....	17	0	0	1	1
December.....	5	14	5	5	5	2	16	3	7	II	V	S.	4	10	8	13	4	10	....	21	1	0	0	1
Year.....	110	102	58	51	97	62	94	44	92	II	VIII	W.	66	119	135	101	101	65	...	229	1	10	4	45

MONTHLY and Annual Summaries for the Year 1900, Fort Chipewyan, North-west Territories—Latitude, N. 58° 43′; Longitude, W. 110° 10′. Height above Sea, —— feet.

MONTH.	PRESSURE AT 32°.			TEMPERATURE.								RELATIVE HUMIDITY				PRESSURE OF VAPOUR.				CLOUDINESS.				PRECIPITATION.	
		Extremes.		Mean.						Extremes.															
	Monthly Mean.	Max.	Min.	8 a.m.	1 p.m.	8 p.m.	Max.	Min.	Mthly	Max.	Min.	8 a.m.	1 p.m.	8 p.m.	Mean.	8 a.m.	1 p.m.	8 p.m.	Mean.	8 a.m.	1 p.m.	8 p.m.	Mean.	Total.	Maximum in any 24 hours.
	in.	in.	in.	°	°	°	°	°	°	°	°					in.	in.	in.	in.	%	%	%	%	in.	in.
January	29·222	29·75	28·46	15·2	10·7	11·5	5·4	18·9	12·2	12·5	−36·0													1·67	0·70
February	29·355	29·94	28·59	18·4	12·1	14·2	7·7	22·2	14·9	7·0	−42·0													0·20	0·05
March	29·401	30·03	28·90	0·6	7·6	5·3	13·9	5·6	4·2	41·0	−39·5													0·40	0·15
April	29·144	29·92	28·55	35·1	44·1	40·4	49·4	29·6	39·5	66·0	8·5													0·54	0·25
May	29·061	29·48	28·73	50·2	56·9	52·6	61·8	41·9	51·8	70·0	25·5													0·22	0·05
June	29·047	29·39	28·57	59·6	64·3	62·4	68·1	48·5	58·3	81·0	35·0													0·28	0·05
July	29·047	29·35	28·66	56·4	61·3	58·8	70·0	51·0	60·5	79·0	38·0													4·60	1·10
August	29·038	29·36	28·65	58·1	65·0	59·8	68·3	47·7	58·0	83·0	31·5													1·80	0·50
September	29·175	29·64	28·60	45·6	52·5	46·4	55·5	37·6	46·6	68·0	24·0													0·70	0·40
October	28·973	29·60	28·20	33·8	39·4	35·1	43·4	28·0	35·7	58·0	15·0													0·51	0·25
November	29·217	29·72	28·52	10·5	13·2	11·8	16·7	1·7	9·3	40·0	18·0													0·75	0·20
December	29·099	29·95	28·48	2·6	5·9	5·9	12·8	2·7	5·5	29·0	−34·0													0·70	0·20
Year	29·148	30·03	28·20	26·5	32·3	29·4				28·5	83·0	−42·0													

MONTH.	NUMBER OF WINDS FROM									AVERAGE HOURLY FORCE.	MAXIMUM FORCE.	DIRECTION AT TIME OF MAXIMUM FORCE.	NO. OF GALES.	NUMBER OF DAYS									
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.					Clear.	Partly Cloudy.	Cloudy.	Precipitation .01 in. or over.	Snow.	Hail.	Fair.	Fog.	Thunder Storms.	Lightning Alone.	Aurora.
January	7	11	17	1	5	5	4	25	18	II	IV	N.W.	0	3	10	18	14	18		13				
February	1	19	3	2	0	4	15	30	10	II	V	N.W.	1	9	15	4	5	6		22				
March	2	20	25	0	3	6	6	18	13	II	V	N.W.	1	11	10	10	4	10		21				
April	2	8	22	5	6	13	8	5	21	II	VIII	S.	1	5	14	11	6	4		21				
May	6	13	37	11	1	6	3	7	9	III	VI	S.W.	5	5	19	7	6	2		19				
June	4	14	38	4	2	12	3	3	10	II	IX	S.W.	7	8	13	9	8			21				
July	8	5	26	5	2	3	11	23	10	III	VIII	E.	5	5	17	9	9			18		2		
August	5	1	13	13	17	12	8	10	14	III	VIII	S.W.	8	6	17	8	5			22		2		
September	0	1	12	8	16	9	24	10	9	III	X	W.	7	8	15	7	2			26		1		
October	4	2	17	7	11	16	17	4	15	III	VII	S.E.	8	7	10	14	7	5		22				2
November	2	2	21	3	2	9	25	8	15	III	VII	W.	5	5	16	9	8	11		19				1
December	10	6	23	2	5	4	20	3	20	II	VII	S.E.	1	9	7	15	6	9		22				
r	51	102	254	61	70	99	144	146	164	III	X	W.	49	81	163	121	80	65		246				

MONTHLY and Annual Summaries for the Year 1900, Moose Factory, Hudson Bay—Latitude, N. 51° 16′; Longitude, W. 80°, 56′. Height above Sea, 30·5 feet.

MONTH.	PRESSURE AT 32°.			TEMPERATURE.								RELATIVE HUMIDITY				PRESSURE OF VAPOUR.				CLOUDINESS.				PRECIPITATION.	
		Extremes.		Mean.						Extremes.															
	Monthly Mean.	Max.	Min.	9 a.m.	2 p.m.	7 p.m.	Max.	Min.	nthly	Max.	Min.	a.m.	p.m.	p.m.	Mean.	a.m.	p.m.	p.m.	Mean.	9 a.m.	2 p.m.	7 p.m.	Mean.	Total.	Maximum in any 24 hours.
	in.	in.	in.	°	°	°	°	°		°	°					in.	in.	in.	in.	%	%	%	%	in.	in.
January	29·931	30·58	29·33	6 8	1 2	4 4	....	17 5	4 1	32·0	—45 2	....	....	....	....	....	....	....	....	56	61	49	55	.....	0·70
February....	29·898	30·48	29·05	4·0	6·2	0·4	....	14·7	0 6	35·0	—38·2	....	....	....	....	....	....	..	....	41	47	49	46	....	....
March	29·997	30 60	29·30	1·8	11·6	5·9	....	12·4	6·4	40·0	—45 0	....	....	....	....	....	....	....	....	52	40	49	47	....	....
April	30·098	30·56	29·50	30·0	35·7	31·3	....	18·8	32·3	64·0	— 5 0	....	....	....	....	....	....	....	....	39	36	49	41	....	....
May..... . .	29·923	30 36	29·51	43·7	48·9	45·7	....	33·8	46·1	86·0	19 0	....	....	....	....	....	....	....	....	58	52	59	56	1·86	0·52
June.....	29·841	30 26	29·20	56·5	59 3	56 0	65·6	45·2	54·4	88·0	33·0	....	....	....	....	....	....	....	....	55	58	49	54	1·62	0·27
July	29·764	30 12	29·20	63·5	66 9	62·6	71·3	51·6	61·4	84·0	39·0	....	....	....	....	....	....	....	....	51	62	61	58	2·98	0·80
August.....	29·943	30·30	29·49	58 8	63·7	58·5	68·7	48·1	58·4	83·0	34·0	....	....	....	....	....	....	....	....	62	57	65	61	3·16	0·62
September...	29·874	30 28	29·36	54·2	59·1	52·9	63·7	43·6	53·7	86·0	30·0	....	....	....	....	....	....	....	....	54	59	55	56	2 48	0 80
October.....	29·997	30·51	29·28	44·9	50·2	45·5	55·5	36·9	46·2	74·0	25·0	....	....	....	....	....	....	....	....	67	66	63	65	1 26	0·57
November ..	29·971	30·50	29 44	19·3	23 0	20·2	26·5	13·2	19·8	63·0	—15 0	....	....	....	....	....	....	....	....	78	82	76	79	1·61	1·48
December...	29·928	30·72	29·13	4 4	10·2	7·3	13 8	1·8	6·0	31·8	—41·2	....	....	....	....	....	....	....	....	69	72	62	68	.. .	.. .
Year ...	29·930	30·72	29·05	30·5	36·1	31·8	....	....	31·8	88·0	—45 2	....	....	....	....	....	....	....	....	57	58	57	57	...	....

MONTH.	NUMBER OF WINDS FROM									AVERAGE HOURLY FORCE.	MAXIMUM FORCE.	DIRECTION AT TIME OF MAXIMUM FORCE.	NO. OF GALES.	NUMBER OF DAYS											
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.					Clear.	Partly Cloudy.	Cloudy.	Precipitation ·01 in or over.	Snow.	Hail.	Fair.	Fog.	Thunder Storms.	Lightning Alone.	Aurora.
January	18	12	5	2	9	18	12	15	1	III	VI	E.	9	9	10	11	1	8	..	23	0	....	....	3
February.....	13	12	1	3	3	26	14	9	3	III	VIII	N.	7	12	7	8	....	7	....	21	1	....	....	1
March	26	19	0	2	9	14	8	15	0	III	VI	N.	8	10	14	7	....	11	..	20	0	....	....	2
April.....	31	37	1	1	4	3	2	5	6	II	V	N.	1	11	14	5	...	5	....	21	0	2	....	7
May	33	34	1	2	4	7	5	3	4	III	VI	N.E.	7	10	8	13	7	5	....	17	3	4	....	0
June.....	16	31	4	0	3	23	5	6	2	III	VIII	S.W.	5	7	13	10	13	0	....	17	2	2	....	0
July	14	20	3	2	6	22	13	10	3	III	VIII	S.W.	13	8	13	10	13	0	....	18	0	3	....	0
August..... ...	25	18	6	2	5	14	1	13	6	II	VI	S.E.	3	3	14	11	13	0	....	15	1	7	1	0
September.....	21	5	7	0	4	30	9	10	2	III	VIII	W.	12	8	9	11	6	0	....	17	3	....	....	1
October.....	22	4	5	2	10	28	6	8	4	III	VII	S.W.	5	5	9	14	6	1	....	19	2	2	....	0
November.....	11	10	4	1	6	19	12	23	2	II	V	W.	1	2	6	21	4	13	....	14	0	....	....	0
December.....	21	8	1	0	11	26	12	3	1	II	VI	N.	5	7	5	19	..	14	....	16	0	....	....	0
Year..... .	251	210	38	17	74	230	99	120	34	III	VIII	....	76	92	122	140	62	64	....	218	12	20	1	14

MONTHLY and ANNUAL SUMMARIES for the Year 1900, Marten's Falls, North-west Territories—Latitude, N. 51° 30′; Longitude, W. 86° 30′. Height above Sea, —— feet.

MONTH.	PRESSURE AT 32°.			TEMPERATURE.								RELATIVE HUMIDITY				PRESSURE OF VAPOUR.				CLOUDINESS.				PRECIPITATION.	
	Monthly Mean.	Extremes.		Mean.						Extremes.															
		Max.	Min.	9 a.m.	2 p.m.	7 p.m.	Max.	Min.	Mthly	Max.	Min.	9 a.m.	2 p.m.	7 p.m.	Mean.	9 a.m.	2 p.m.	7 p.m.	Mean.	9 a.m.	2 p.m.	7 p.m.	Mean.	Total.	Maximum in any 24 hours.
	in.	in.	in.	°	°	°	°	°	°	°	°					in.	in.	in.	in.	%	%	%	%	in.	in.
January	29·233	29·75	28·59	8·1	0·6	2·7	2·5	18·5	8·0	36·0	−45·0									61	58	60	60	1·70	0·30
February	29·209	29·68	28·89	10·4	1·8	5·7	2·8	18·6	7·9	31·0	−42·0									56	54	55	55	1·60	1·20
March	29·318	29·84	28·57	0·8	13·8	9·4	16·1	14·4	0·9	44·0	−47·0									35	45	46	42	0·26	0·12
April	29·412	30·00	28·92	34·9	46·7	40·0	48·6	21·8	35·2	80·0	−2·0									46	38	44	43	0·20	0·15
May	29·258	29·65	28·92	47·0	57·2	52·2	60·3	33·1	46·7	87·0	17·0									53	52	53	53	0·20	0·15
June	29·194	29·53	28·62	55·9	65·7	60·4	68·1	44·7	56·4	91·0	33·0									61	62	62	62	0·99	0·30
July	29·170	29·44	28·46	61·9	69·6	63·2	74·3	46·0	60·2	92·0	37·0									55	62	63	60	1·62	0·35
August	29·326	29·60	28·81	62·6	69·6	61·4	74·8	49·0	61·9	88·0	32·0									57	68	59	61	1·87	0·38
*September										85·0	30·0														
October	29·132	29·63	28·55	41·0	47·3	43·0	50·2	35·0	42·6	72·0	25·0									77	72	62	70	2·05	0·60
November	29·178	29·55	28·57	14·4	18·4	13·9	43·0	−20·0	13·3	43·0	−20·0									74	69	58	67	1·80	0·30
December																									
Year																									

* Instruments moved to Fort Hope, 90 miles up the Albany River.

MONTH.	NUMBER OF WINDS FROM									Average Hourly Force.	Maximum Force.	Direction at time of Maximum Force.	No. of Gales.	NUMBER OF DAYS										
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.					Clear.	Partly Cloudy.	Cloudy.	Precipitation 01 in or over.	Snow.	Hail.	Fair.	Fog.	Thunder Storms.	Lightning Alone.	Aurora.
January	16	3	12	6	1	4	11	3	37	I	IV	E.	0	6	12	13	11	14	....	17	....	....	....	1
February	8	4	2	4	3	5	19	9	30	I	IV	N.	0	9	6	13	3	5	....	23	....	....	....	1
March	13	9	6	2	2	10	4	7	40	I	III	N.W.	0	13	11	7	7	9	..	22	....	....	....	1
April	19	3	12	10	6	5	6	0	29	I	III	N.	0	12	8	10	2	3	..	26	....	1	...	5
May	21	2	3	15	9	6	7	7	23	I	III	N.W.	0	8	12	11	2	2	....	25	....	3	....	3
June	9	0	2	8	4	12	24	11	20	I	III	N.	0	7	8	15	8	....	....	20	..	3	....	0
July	12	0	4	1	13	15	20	15	13	I	III	W.	0	4	17	10	12	....	....	17	....	2	....	0
August	3	3	13	14	23	6	21	1	9	I	II	W.	0	1	20	10	11	....	....	16	....	3	....	1
September																						4	1	0
October	0	12	15	13	3	7	10	6	27	I	III	E.	0	4	11	16	10	1	...	20	3	2	....	2
November	4	12	6	5	2	2	8	17	34	I	II	N.W.	0	5	8	17	12	15	....	12	....	1	....	2
December																								
Year																								

MONTHLY and Annual Summaries for the Year 1900, York Factory, Hudson Bay—Latitude, N. 57° 0′; Longitude, W. 92° 28′. Height above Sea, 55 feet.

MONTH.	PRESSURE AT 32°.			TEMPERATURE.									RELATIVE HUMIDITY				PRESSURE OF VAPOUR.				CLOUDINESS.				PRECIPITATION.	
	Monthly Mean.	Extremes.		Mean.							Extremes.															
		Max.	Min.	7 a.m.	2 p.m.	9 p.m.	Max.	Min.	Mthly		Max.	Min.	7 a.m.	2 p.m.	9 p.m.	Mean.	7 a.m.	2 p.m.	9 p.m.	Mean.	7 a.m.	2 p.m.	9 p.m.	Mean.	Total.	Maximum in any 24 hours.
	in.	in.	in.	°	°	°	°	°	°		°	°					in.	in.	in.	in.					in.	in.
January	29·947	30·37	29·55	23·0	16·9	20·4	43·1	−26·0	19·6		12·0	−49·0									47	47	35	43	0·40	0·30
February	29·881	30·33	29·32	19·8	11·1	16·1	48·2	−22·2	15·2		22·0	−46·0									58	51	45	51	0·70	0·60
March	30·001	30·56	28·82	8·5	1·7	4·1	6·5	−11·9	2·7		41·0	−41·0									57	53	47	52	1·60	1·20
April	30·048	30·80	29·20	23·1	33·1	25·8	36·4	18·8	27·6		59·0	5·0									73	55	49	59		
May	29·887	30·30	29·23	35·1	42·5	35·3	46·4	29·4	37·9		75·0	12·0									65	66	57	63	0·55	0·47
June	29·814	30·14	29·23	45·9	51·5	45·7	56·6	38·8	47·7		79·0	27·0									61	58	59	59	2·49	0·6
July				55·1	60·4	54·2	65·2	46·6	55·9		78·0	39·0									49	53	66	56	3·66	1·61
August																										
September				38·0	45·6	40·7	32·6	41·2			75·0	6·0									49	49	47	48	9·42	3·25
October				18·2	26·7	20·6	15·4	21·6			43·0	5·0									48	46	44	46	1·13	0·40
November				7·8	3·3	7·2	15·1	6·4			22·0	40·0									47	48	52	49	0·52	0·20
December																										
Year																										

MONTH.	NUMBER OF WINDS FROM										AVERAGE HOURLY FORCE.	MAXIMUM FORCE.	DIRECTION AT TIME OF MAXIMUM FORCE.	NO. OF GALES.	NUMBER OF DAYS										
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.						Clear.	Partly Cloudy.	Cloudy.	Precipitation .01 in. or over.	Snow.	Hail.	Fair.	Fog.	Thunder Storms.	Lightning Alone.	Aurora.
January	8	1	4	5	2	27	17	22	7		II	VI	N.W.	6	14	10	7	2	5		26				7
February	7	6	3	3	4	14	13	22	12		III	VII	N.W.	13	9	11	8	2	9		19	1			4
March	8	4	5	0	6	13	14	32	11		III	VII	N.W.	14	9	14	8	3	5		26				
April	4	8	8	10	11	17	8	16	8		III	VI	N.W.	10	8	7	15		2		25	1			2
May	13	17	5	11	5	8	5	25	4		IV	VII	N.W.	19	7	12	12	6	4		21	6	2		
June	12	27	6	10	5	3	10	14	3		III	VIII	N.E.	12	4	16	10	11	2		15	2	2		1
July	9	24	7	2	13	13	11	13	0		III	VII	N.	14	5	16	10	10			19		3		0
August																									
September	5	19	16	3	7	19	4	17	0		II	VII	N.E.	4	7	16	7	17	3		11		1		5
October	8	6	15	6	24	13	8	13	0		II	V	N.	2	9	18	4	9	8		17	1	1		
November	1	3	1	5	23	17	9	31	0		II	VI	N.W.	7	7	18	5	3	4		26				4
December																									
Year																									

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METEOROLOGICAL SERVICE, DOMINION OF CANADA.

Monthly Weather Review.

VOL. XXV MARCH, 1901. No. 3

INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraph reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm signal agents. For the material used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

REMARKS UPON THE WEATHER.

The chief characteristics of the weather of March in Canada were, with a few exceptions, high mean temperatures, more especially in the western portion, where also it was somewhat drier than usual, excessive precipitation in Ontario and generally less bright sunshine than usual. The arrival of migratory birds and other signs of spring were reported from most districts before the 31st.

The weather in British Columbia was characterized by high mean temperature in most districts where it was generally above average, also precipitation below average and somewhat less bright sunshine than usual. The highest temperature reported was 74 at Princetown on the 20th, and at several places 60° was exceeded after the 15th. Although there was snow on the mountains on the 31st, the ground was bare in most western districts and on low levels in the Upper Mainland it was rapidly disappearing. On the Islands several wild flowers and shrubs were in bloom by the 31st.

In the North-west Territories the weather was not so cold as usual and throughout the greater portion of the country it was somewhat drier. The proportion of bright sunshine was slightly below average, but there were many bright days when, with the help of chinook winds, much snow was melted, and by the 31st the ground was almost bare in southern and south-western districts, farmers having reported ploughing at a few places late in the month. In the western portion of the Territories the ice on some rivers broke up during the first week and several migratory birds appeared after the 20th. Light or moderate winds prevailed generally.

In the Province of Manitoba the weather conditions were very similar to conditions in the Territories, the mean temperature being above average and the precipitation and proportion of bright sunshine somewhat below; the maximum and minimum temperatures of the month, however, were generally lower. In most districts there was some snow upon the ground on the 31st, although in many places it was insufficient for sleighing after the 20th. Late in the month the ice on rivers began to break and several migratory birds were reported.

In Ontario the weather was not so cold as usual and it was generally moister, both the temperature and precipitation with few exceptions being above average. The proportion of bright sunshine was considerably below average at nearly all stations, nevertheless there were some bright days upon which much of the snow was melted and by the 31st the ground was bare in southern districts. Strong winds were unusually frequent and when the snow had gone the land was quickly dried. Many migratory birds were recorded after the 10th.

The weather in the Province of Quebec did not differ much from the normal, the mean temperature and precipitation being average or slightly above. Up to the 21st cold weather prevailed generally with rather frequent falls of snow; after this date, however, it was milder and much of the snow on the ground was melted. Temperatures well below zero occurred during the month and there were few signs of approaching spring on the 31st.

In New Brunswick the weather did not depart much from the normal, but in most districts the mean temperature and precipitation were somewhat above average and the proportion of bright sunshine was slightly below. Up to about the 17th the weather was cold and wintry, after which it became much milder, and although there was some snow in the northern portion on the 31st, it had almost gone by the 25th in southern districts, when also several migratory birds were recorded and there were other signs of spring.

In Nova Scotia the weather varied with the district, the temperature and precipitation being somewhat below average in some localities and above in others. Along the Atlantic coast there was much mild weather and after the 20th the snow was quickly melted, the ground being almost bare throughout the Province by the 31st. Gales were reported from Halifax on the 5th, 11th and 21st. Fogs were recorded on nine days at Sydney and Whitehead. A few migratory birds appeared after the 20th.

The weather in Prince Edward Island was about average and the conditions generally were very similar to conditions in New Brunswick. On or about the 21st the weather became unusually mild and the snow was quickly melted, the ground being bare in many places by the 31st.—F. F. Payne.

ATMOSPHERIC PRESSURE.

The mean atmospheric pressure was below the average everywhere in the Dominion, except in Vancouver Island and the larger portion of British Columbia where it was from average to 0·05 of an inch above. In Ontario the greatest deficiency occurred, amounting to from 0·10 to 0·15 of an inch. In the North-west Territories it was also 0·10 of an inch below average in most localities.

LOW AREAS.

Nine areas of low pressure were sufficiently well marked to be charted. A number of the depressions were important, and the great similarity in the paths and general features of the areas was most remarkable.

No. 1 was a moderate area which appeared in the North-west Territories on the 28th of February, and after reaching Lake Superior on the morning of March 1st travelled during the day far north over the country to the Gulf of St. Lawrence attended in Ontario by light snowfalls and in the Maritime Provinces by snow and rain. No. 2 passed into the North-west Territories on the 1st. It soon developed great energy, and on the 3rd, when over the Lake Superior region, it caused a severe storm. Afterwards, however, it travelled far north to the Gulf of St. Lawrence with diminishing energy. It caused numerous falls of rain or snow throughout its course, but the snowfall was only heavy in the Lake Superior District. No. 3 was situated over Indian Territory and its vicinity on the morning of the 4th, whence it moved with rapidity to the Middle Atlantic States, up the Atlantic Coast, and over the Maritime Provinces, causing a general and fairly heavy rainfall in the Maritime Provinces and moderate snowfalls over the greater portion of the Province of Quebec. No. 4 was an area of great energy and of remarkable movement. It was first shown in Montana on the 7th, whence it passed south-eastward and southward, reaching Northern Texas on the 9th. It then changed its course to a north-easterly one, and at the same time became more energetic. On the morning of the 11th there were two important foci, one over the Georgian Bay and the other in Maryland. On the 12th the foci united in Nova Scotia whence the disturbance passed to Newfoundland. The gale accompanying this disturbance was severely felt in the Maritime Provinces and heavy precipitation, mostly snow, was experienced in Ontario and Eastern Canada. No. 5 was also an area of considerable energy. It passed into the North-west Territories from British Columbia on the 11th, thence southward to Kansas and afterward over the Lower Lake Region, and eventually it passed off the Middle Atlantic United States Coast and out to sea. In the North-west Territories it caused light snowfalls in some localities and moderate snowfalls in others, whilst in Ontario snow and sleet occurred generally together with strong winds and gales. The bad weather attending this area did not extend much further east than Montreal. No. 6 was a very shallow area which passed far north of the Lake Region and the St. Lawrence Valley between the 16th and 17th, causing a few light snowfalls in Ontario, Quebec and the Maritime Provinces. No. 7 was an area of much importance; it passed over British Columbia on the 16th, and its course was then almost precisely that of No. 4, excepting that before recurving to the north-east it did not pass quite as far south as Texas, but, as in No. 4, a second focus was formed near the Middle Atlantic Coast. It caused snow to fall in many parts of the North-west, the fall being considerable in northern localities, and from Ontario to the Maritime Provinces it gave very bad weather between the 19th and 22nd, snow and rain being everywhere experienced attended by strong winds and gales. No. 8 was another area of importance, its general characteristics and movement closely resembling Nos. 4 and 7 even to the formation of the second focus near the United States Atlantic Coast. On the 21st it was in Alberta; on the 24th and 25th it brought rain and local thunderstorms to the Lake Region as well as strong winds and gales. From the 26th until the end of the month it caused very unsettled conditions in Quebec and the Maritime Provinces when heavy precipitation was recorded in all localities, chiefly rain, and strong breezes, and moderate gales were also general. No. 9 was an area of moderate energy which travelled from the South-west States north-eastward to Iowa, thence to Pennsylvania where it dispersed. It did not cause any bad weather in Canada.

HIGH AREAS.

Seven areas of high pressure were charted during the month as follows :—

No. 1 was a small area which was situated in Northern Manitoba on the 1st, whence it travelled to the Lower St. Lawrence Valley and then southward over the Maritime Provinces ; it was attended by very low temperatures especially in Northern Ontario and over Quebec. No. 2 was centred in the North Pacific States on the morning of the 3rd, and by the following morning it had reached Southern Alberta accompanied by very cold weather throughout the Territories and Manitoba. On the 5th it was centred in Assiniboia whence it was rapidly transferred to the southward and on the 6th it covered Eastern Texas and Louisiana ; on the 8th it passed off the North Carolina Coast and out to sea ; the cold weather accompanying this area was experienced from Ontario to the Maritime Provinces as well as in the North-west. No. 3 appeared in Northern Manitoba on the 8th, it then passed far North to the Lower St. Lawrence Valley which it reached on the morning of the 10th, and thence over the Maritime Provinces ; it was attended by a short and sharp spell of cold weather ; the temperature falling below zero in most Northern localities. No. 4 moved on to the Middle Pacific Coast on the 12th ; it then spread to the North-west States and Manitoba and afterwards travelled directly southward to the North shores of the Gulf of Mexico, thence over Northern Florida and out to sea. No. 5 was first indicated to the Northward of Manitoba on the 16th ; it soon showed itself to be an area of great energy the main system passing far North to the Lower St. Lawrence Valley and thence over the Maritime Provinces whilst a portion remained in Manitoba until the 20th and then broke up ; the system was accompanied by a rapid change to cold weather from Ontario to the Maritime Provinces during the night of the 18th, but the cold was of very short duration ; in the Territories and Manitoba it was also attended by decidedly cold weather. No. 6 was a moderate area which was centred in Louisiana on the morning of the 21st and afterwards passed to the South Atlantic States and thence out to sea. In the meantime, however, it spread northward and north-eastward to Canada accompanied in Ontario on the 22nd and 23rd, and in Quebec and the Maritime Provinces from the 23rd until the 26th, by fine mild weather. No. 7 was not an area of much importance ; it hovered in Manitoba and its vicinity from the 24th until the 28th and after reaching the Lake Superior District on the night of the 29th it seemingly dispersed.

WINDS.

In British Columbia on Vancouver Island and the Lower Mainland the wind mileage was considerably more than usual and chiefly from the south-west and west. The force of a gale was reached on the 6th, 9th and 24th.

In the North-west Territories and Manitoba the wind mileage was not by any means excessive, the force of a strong breeze being recorded on only two or three occasions and that of a gale but once. No one direction was particularly in evidence, but in the Territories on a number of days the winds were westerly and in Manitoba northerly.

In the Lake Region the general direction was pretty evenly divided between the westerly and the easterly ; fresh to strong breezes were of almost daily occurrence, and on five occasions the force of a gale was recorded.

In the Ottawa and St. Lawrence Valleys and the Gulf no one direction predominated to any extent, but fresh to strong breezes were numerous and gales were experienced six times.

In the Maritime Provinces also, no one direction was particularly prevalent. On fourteen days fresh breezes were recorded and on six, strong breezes, and there were besides five gales. The gales on the 4th, 21st, 27th and 30th, were moderate and not experienced in all localities, but the storm of the 11th was widespread and of considerable force. Good warning was given of the approach of the storms of the 4th, 11th and 21st, but the gales on the 27th and 30th were not warned, and on the 13th a warning was issued and not subsequently verified by high winds.

BRIGHT SUNSHINE.

Bright sunshine was deficient in all portions of Canada, Montreal, Kingston, Lindsay, Woodstock, Barrie and Agassiz recording the greatest amounts below average. The percentage of the possible duration ranged from 48 at Winnipeg to 18 both at Agassiz, B.C. and Woodstock, Ont.

TEMPERATURE.

The temperature was above the average throughout the Dominion, except in the portion of the country comprised in the area from the eastern part of the Lake Superior region to Western Quebec, south of the north shores of the Georgian Bay district and the Ottawa and St. Lawrence Rivers, where it

was from average to 2 below. From the mainland of British Columbia to Manitoba the positive departure was large, amounting to as much as 9 and 10 degrees in portions of Alberta, Assiniboia and Manitoba. Elsewhere, however, the average was very slightly exceeded.

The Highest and Lowest Temperatures in each Province during March, 1901, were :

British Columbia,	74°·0 on 20th at Princeton.	—10°·0 on 4th at Barkerville.
North-west Territories,	64°·0 on 2nd at Athabasca Landing.	—28°·0 on 1st at Cannington Manor.
Manitoba,	48°·0 on 11th at Bowsman.	—25°·0 on 4th at Channel Island.
Ontario,	65°·0 on 25th at Cottam	—44°·3 on 6th at White River.
Quebec,	50°·0 on 25th at Sherbrooke.	—25°·0 on 3rd at Richmond.
New Brunswick,	48°·9 on 24th at St. Stephen.	—18°·9 on 1st at St. Stephen.
Nova Scotia,	53°·0 on 22nd at Truro.	—11°·0 on 1st at Truro.
Prince Edward Island.	46°·6 on 28th at Charlottetown.	— 2°·1 on 7th at Summerside.

PRECIPITATION.

The precipitation was unevenly distributed in many respects. In Ontario and Quebec it was everywhere above the average, except in portions of the Ottawa Valley. In the Maritime Provinces the discrepancies between plus and minus were very marked; for instance, Sydney, Cape Breton, was 1·8 above average, Charlottetown, 1·6 below average, St. John 0·8 below average, Grand Manan 0·9 above, Yarmouth average, Halifax 1·4 below average. In Manitoba the average was not quite maintained, especially in the neighbourhood of Winnipeg, whereas in the Territories, in the north, it was exceeded, and did not reach the average amount in the south. In British Columbia, Victoria was 2.2 inches below average, whereas on the Mainland, Kamloops was half an inch below average, and Barkerville an inch above average.

DEPTH OF SNOW.

At the end of the month deep snow still covered the Province of Quebec and also the northern portion of Ontario. Quebec reported 33 inches on the ground, Montreal 23 inches, Bissette 20 inches, White River 34 inches. In many portions of the North-west Territories and also in Northern New Brunswick there was more than a foot, but in southern localities generally the ground was either bare or patches of snow only remained.

ERRATA.

February Review, 1901, page 29, the mean minimum temperature at Norway House for January, February and March, 16°·8, 20°·2 and 5°·5 should be —16°·8, —20°·2 and – 5°·5.

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MARCH, 1901.

a Barometer not reduced to Sea Level. • Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	Pressure. Mean reduced.	Pressure. Highest.	Pressure. Lowest.	Pressure. Range.	Temperature. Mean.	Temperature. Difference from average.	Temperature. Years observt.	Temperature. Highest.	Temperature. Date.	Temperature. Lowest.	Temperature. Date.	Temperature. Mean daily range.	Mean temperature of Dewpoint.	Mean relative Humidity.	Mean amount of Cloud.	No. of days completely clouded.	Direction of Wind from N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	C.	Total number of hours.	Velocity of Wind. Mean miles per hour.	Highest day's velocity.	Date and direction from.	Precipitation. Amount.	Difference from Average.	Heaviest fall in month.	Days with .01 or more.	No. of Fair days.	No. of Auroras.	No. of Thunder storms.	No. of Fogs.
	° ′	° ′	′	in.	in.	in.		°	°		°		°		°	°																in.	in.	in.					
BRITISH COLUMBIA:																																						
Victoria	48 24	123 19	85	30·06	30·60	29·47	1·13	44·4	+ 1·8	10	57	5	32·8	24	10·3			7	5	141	68	53	69	49	172	145	27	20	744	9·8	29	3	3 W	0·93	−2·19	0·27	13	16	0	0	0
Barkerville	53 2	121 35	4180	29·92	30·79	29·39	1·40	29·3	+ 3·5	13	50	0	16	−10·0	4·20	2		7	4	0	0	0	0	8	9	0	1	44	62		11·0		14 S	2·90	+1·01	0·61	13	14	0	0	0
Agassiz	49 14	121 31	52					41·9	+ 1·1	10	66	0	20	28·0	24·22	0		4	0	27	1	0	0	45	0	21	0	0	94					3·16	−2·24	0·61	17	14	0	0	0
Port Simpson	54 34	130 26	26	29·89	30·42	29·31	1·11	40·0	+ 4·9	14	59	0	16	27·0	3·10	7	31·6	87	8	9	1	0	0	10	9	4	1	0	60	85	I	III	31 S		7·35	+2·48	1·60	17	14	0	0	20
Spence's Bridge	50 23	120 20	770					43·5	+ 4·3	10	67	5	17	25·0	28·23	6																		0·07	−0·38	0·04	2	25	0	0	0
Hazelmere	49 3	122 43						45·8	—		8	6	5	20·5	20·5					0	22	4	5	9	20	0	2	0	62					2·07	—	0·38	16	15	0	0	0
Revelstoke	51 0	118 6	1476																																					
Kamloops	50 41	120 29	1193	29·98	30·74	29·44	1·30	42·6	+ 6·0	8	68	1	16	29·0	6·20	9			6	5	0	0	9	7	10	2	6	4	24	62		VI	9 SE	0·06	−0·51	0·06	1	30	0	0	0
Princetun	49 29	120 29	1650					39·8	—		7	7	4	24·0	15·5	9																	0·40	—	0·37	3	27	0	0	0
Pilot Bay	49 38	116 55																																						
Rivers Inlet	51 39	127 19	20	30·01	30·64	29·39	1·25	40·7	—	7	52	6	6	30·1	4·11·5		37·7	92	8	9	0	1	0	13	0	11	6	0	62	9·3	I	III	12 SE	10·50	—	1·41	24	7	0	0	1
Stuart's Lake	54 28	124 12	1800					29·3	—		8	5	0	16	4·1	5	24·3																	0·70	—	0·30	5	26	0	0	0
French Creek	49 20	124 36						41·4	—		8	5	6	0	16-22	7·0	24	18·6																	0·26	0	0	0	0	0
Glacier	51 16	117 28	4072																															1·15	−2·06	0·55	5	6	0	0	0
Duncans	48 45	123 30						42·2	— 0·5	10	61	0	17	22·0	5·23·2																										
Griffin Lake	50 56	118 29	1517																															0·19	—	0·07	4	27	0	0	0
Coldstream	50 14	119 15	1246					38·6	—		59	0	21	17·0	4·16·6																			1·19	—	0·55	13	16	0	0	0
Nanaimo	49 10	123 53						42·3	—		59	8	15	26·6	24·17·9		37·2	81	6	2	1	3	3	34	0	4	6	16	26	93	II	VI	9 SE							
Chilliwack	49 10	121 57																																15·09	—	1·64	25	5	0	0	0
Port Bobs	50 32	128 3						41·3	—		5	51	0	7	31·0	20	9·7																	0·73	—	0·40	5	26	0	0	0
Midway	49 0	118 45	1800					38·6	—		6	6	1	20	19·0	4	22·7																							
Enderby	50 32	119 7	1180																															9·39	−0·24	0·15	5	8	0	0	0
Nicola Lake	50 9	120 39	2120					38·0	—		6	0	0	16	18·5	4	19·2																							
West Konteoay	49 20	117 50						42·9	—		6	57	0	16	28·0	5	12·1																	0·34	—	0·21	4	27	0	0	0
Garry Point	49 12	123 17						37·6	—		6	62	1	17	12·0	5	18·5																	3·04	—	0·77	18	13	0	0	2
Tobacco Plains	49 1	115 5	2300					43·0			3	59	9	15	28·0	5	13·9																	3·71	—	0·74	17	14	0	1	0
Vancouver	49 18	123 4	195					43·5			2	67	8	15	29·5	5	13·5																	1·25	—	0·30	8	23	0	0	0
New Westminster	49 13	122 54	330	30·07	30·62	29·51	1·11	41·9			2	55	0	1	28·0	5	12·1																	5·55	—	0·70	21	23	0	0	0
a Ladner	49 5	123 4		30·08	30·46	29·52	0·95	44·2			9	62	0	15	29·0	24	14·6																	0·00		0·00	0	31	0	0	0
N. Nicomen	49 12	122 2	59					37·4			8	63	0	18	3·0	3	25·7																	3·31	—	1·82	28	3	0	0	0
Quesnelle	52 59	122 30	1700					43·4	—		2	56	0	27	29·0	11	13·9																							
Clayoquot	49 11	125 47																																						
Cape Scott	50 48	128 27																																0·54	—	1·20	10	21	0	0	0
Massett	53 58	132 9	30					42·2	—		4	56	0	12	30·0	2	17·2																	1·48	—	0·28	10	21	0	0	1
Quesnelle Forks	52 45	121 55						34·2			4	57	0	16	— 1·0	4	29·3																	12·83	—	0·85	8	23	0	0	0
Bella Coola	52 20	126 51	15					39·2			2	58	0	6	26·0	24	16·2																							
Cranbrook	49 30	115 50	40					34·6	—		1	57	0	17	10·0	5	18·8																	1·16	—	0·30	13	18	0	0	0
Nelson	49 29	117 21						40·5	—		2	62	0	22	18·0	4	17·8																	0·27	—	0·70	6	25	0	0	0
Okanagan Mission	49 52	119 29						39·7			3	57	2	22	20·0	4	20·7																	5·48	+0·31	1·33	22	9	0	0	0
Matsqui	49 7	122 18						43·4	+ 2·2	12	62	0	15	28·0	23·15·6																										
Rossland	49 6	117 49	3400																															4·05	—	0·90	22	9	0	0	0
Alberni	49 30	124 50	300					41·0	—		5	54	0	19	26·9	24	14·2																							
N.-W. TERRITORIES:																																								
Medicine Hat	50 1	110 37	2161																																					
Edmonton	53 33	113 30	2158	29·90	30·74	29·42	1·32	32·9	+10·8	18	57	0	14	— 9·0	4·27·6					4	2	3	3	9	2	2	0	6	1	36	62	20·0	2 W		0·66	−0·06	0·60	8	25	0	0	0
Swift Current	50 20	107 45	2439	29·80	30·70	29·54	1·16	28·2	+ 8·7	15	50	0	16	−12·0	4·15·9					5	0	5	3	1	10	7	4	15	7	10	62	28·7	4 NW		0·30	−0·51	0·06	8	21	0	0	0
Qu'Appelle	50 30	103 47	2115	30·03	30·76	29·34	1·42	34·0	+ 6·6	17	69	4	1	−18·6	4·17·4					6	9	3	4	9	8	11	6	2	17	2	62	34·0	4 NW		0·91	+0·14	0·34	9	19	0	0	2
Calgary	51 2	114 2	3389	29·96	30·89	29·48	1·41	30·4	+ 6·5	17	55	0	15	−10·0	4·19·6					5	2	2	2	5	5	3	4	14	12	14	62	20·0	3 NW		1·15	+0·43	0·20	6	24	0	0	0
Prince Albert	53 14	106 0	1402																																					
Battleford	52 41	108 29	1620	30·06	30·85	29·52	1·33	18·8	+ 8·1	10	42	0	15	−13·0	4·22·0					6	5	3	24	63	274	30	4	99	82	165	744	6·0	21·0	4 W	1·15	+1·69	0·54	7	23	2	0	3
Onnikup	53 30	101 20																																12·5	2 SW	1·35	—	0·43	9	22	0	0	0
a Banff	51 10	115 35	4542	30·04	31·03	29·52	1·51	28·0	—		6	49	5	16	−19·2	4	20·4			5	1	0	4	0	0	5	13	15	0	25	82										
Calgary (2)	51 4	114 4																																0·05	−0·26	0·05	1	30	0	0	1
Chaplin	50 27	106 46	2202					24·0	+ 6·9	17	47	0	16	−12·0	3·25·0																			0·04	—	0·04	1	8	1	0	0
Moose Jaw	50 21	105 35	1745					22·0	—		7	45	0	15	−13·0	4	7·8			7	1	6	4	13	0	20	4	7	62					0·53	+0·20	0·15	9	22	0	0	0
Regina	50 27	104 37	1885					17·4	+ 5·3	17	35	6	16	−20·0	4·1·6																										

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MARCH, 1901

a. Barometer not reduced to Sea Level *Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	Pressure. Mean reduced	Pressure. Highest.	Pressure. Lowest	Pressure. Range.	Temperature. Mean.	Temperature. Difference from average.	Temperature. Yearsobserv't.	Temperature. Highest.	Temperature. Date	Temperature. Lowest	Temperature. Date	Temperature. Mean daily range.	Mean temperature of Dewpoint.	Mean relative Humidity.	Mean amount of Cloud.	No. of day completely cloudeds.	Direction of Wind from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of hours	Velocity of Wind Mean miles per hour.	Highest day's velocity.	Date and direction from	Precipitation Amount.	Difference from Average	Heaviest fall in month.	Days with .01 or more No. of Fair days	No. of Auroras.	No. of Thund. storms	No. of Fogs.
N.-W. Territories—*Con.*																																						
Indian Head	50 28	103 40	1924	....	....	....	....	18 0	+ 6 7	10	42 0	1	−20 0	4	17 0	....	....	....	....	4	9	3	20	20	9	1	27	0	93	....	....	....	0 50	— 0 20	1 30	0	0	0
Cannington Manor	49 43	102 2	2064	....	....	....	....	16 0	—	6	38 0	16	−28 0	1	19 3	....	....	....	....	2	13	3	11	5	8	1	12	5	60	....	....	....	1 20	— 0 40	6 25	0	0	7
Macleod	49 44	113 24	....	....	....	....	....	33 8	—	5	61 0	16	−15 0	4	20 7	....	....	....	....	15	4	0	8	1	11	40	14	0	93	....	....	....	0 35	— 0 20	4 26	0	1	0
Gatesgarth	50 20	105 0	1879	....	....	....	....	19 4	—	6	38 0	15	−20 0	4	18 6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	0 99	— 0 41	5 26	0	0	0
Pincher Creek	49 11	114 0	3780	....	....	....	....	32 4	—	5	59 0	17	−20 0	4	21 4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Grenfell	50 23	102 53	1957	....	....	....	....	20 4	—	1	43 0	8	−20 0	4	—	....	....	....	....	2	3	17	5	0	8	10	15	4	31	0	90	....	....	....	0 20	— 0 20	1 34	0	0	0
Kneehill	51 55	113 0	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Muskowpetung	50 15	104 15	....	....	....	....	....	19 2	—	3	45 0	7	−20 0	4	25 9	....	....	....	....	1	1	0	6	15	6	6	12	21	62	....	....	....	0 91	— 0 25	4 27	0	0	0
Fort Simpson	61 52	121 43	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Alameda	49 15	102 17	1892	....	....	....	....	—	—	—	43 0	29	−18 0	20	—	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Duck Lake	52 54	106 9	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Red Deer	52 15	113 30	2795	....	....	....	....	24 4	—	3	50 7	15	−16 8	4	16 9	....	....	....	....	3	0	1	2	3	9	4	9	0	31	....	....	....	0 81	— 0 36	12 19	4	0	5
Saskatoon	52 15	106 30	1571	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Crane Lake	50 0	109 50	2516	....	....	....	....	32 0	—	3	60 0	16	− 9 0	4	17 3	....	....	....	....	8	4	6	8	8	8	12	8	0	62	....	....	....	0 51	— 0 20	6 21	0	0	0
Tagish (Yukon)	60 17	134 15	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Estevan	49 52	103 4	1858	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Moosomin	50	102 37	....	....	....	....	....	16 2	—	2	39 0	16	−20 0	3	17 0	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	0 40	— 0 35	2 29	0	0	0
Athabasca Landing	54 43	113 17	....	....	....	....	....	25 4	—	1	64 0	2	−16 0	3	31 4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	0 67	— 0 10	5 26	0	0	0
Calgary (Exp. Station)	....	....	....	....	....	....	....	30 9	—	1	55 9	16	−16 4	4	23 8	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1 20	— 0 25	8 23	0	.	0
Crescent Lake	....	....	....	....	....	....	....	13 9	—	1	37 0	1	−20 0	4	20 7	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	0 55	— 0 20	7 24	0	0	5
Manitoba :																																						
Minnedosa	50 10	99 48	1690	30 07	30 53	29 37	1 16	19 3	+ 7 4	18	43 5	16	−19 6	4	23 1	....	....	....	....	5	4	5	3	9	7	3	1	8	6	29	62	....	28 0	4 NW	0 51	−0 14	0 18	6 22	3	0	1
Winnipeg	49 53	97 7	760	30 15	30 79	29 56	1 23	15 6	+ 3 5	28	58 0	12	−22 7	4	26 6	....	....	....	....	5	3	20	3	6	2	6	4	8	10	3	62	....	30 0	3 W	0 26	−0 77	0 16	3 26	0	0	0
*a*St Alban's (Aweme)	49 43	99 33	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
*Fort Osborne	49 53	97 11	....	....	....	....	....	15 6	+ 2 2	14	37 0	29	−21 0	4	—	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Portage la Prairie	49 57	98 1	830	....	....	....	....	18 5	+ 2 9	13	41 0	29	−20 0	4	20 9	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	0	0	0
Brandon	49 51	99 57	1176	29	30	29	1	2 3	+ 9 1	12	41 1	29	−18 6	5	21 2	....	....	....	....	6	3	2	30	6	20	0	9	5	21	0	93	1	III	18 SE	....	....	....	0	0	0
Channel Island	52 18	97 23	710	....	....	....	....	10 4	+ 1 7	15	38 0	12	−25 0	4	24 2	....	....	....	....	4	3	16	10	12	6	21	3	6	19	0	93	....	....	....	0 40	−0 10	0 30	2 29	1	0	0
Elkhorn	49 38	100 58	....	....	....	....	....	15 7	—	....	87 0	1	−20 0	4	24 2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	0 40	−0 60	0 20	4 27	0	0	1
Stony Mountain	50 5	97 12	803	29 94	30 36	29 23	1 13	17 8	+ 8 1	20	38 0	1	−22 5	4	22 4	....	....	....	....	....	....	4	11	4	7	8	7	3	18	2	62	II	VIII	2 NW	0 05	−0 56	0 03	1 28	0	0	1
*a*Barnardo	50 59	101 20	....	26 91	27 36	26 42	0 94	13 1	+ 4 8	13	39 0	1	−20 0	4	23 0	....	....	....	....	6	9	3	19	34	0	0	22	0	93	....	....	....	0 90	−0 26	0 20	5 25	1	0	0
Treherne	49 38	98 42	....	....	....	....	....	19 6	—	6	45 0	30	−18 0	5	22 1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	0 50	— 0 40	4 27	0	0	0
Rosebank	49 22	98 6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Hillview	49 54	100 35	....	....	....	....	....	17 9	+ 5 3	14	38 0	30	−19 0	4	19 4	....	....	....	....	3	2	2	2	23	14	1	8	4	36	3	93	....	....	....	0 40	−0 76	0 20	3 28	0	0	3
Roseberry	49 15	99 20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Pinestone	49 39	100 58	1440	....	....	....	....	17 5	—	2	40 0	11-29	−18 0	5	19 0	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2
Bowsman	52 15	101 0	1060	....	....	....	....	16 6	—	1	48 0	11	−20 0	19	27 8	....	....	....	....	1	14	0	1	1	9	1	4	0	31	....	....	....	1 00	— 0 30	6 23	1	0	4
Ontario :																																						
Haileybury	47 29	79 39	687	29 94	30 64	29 37	1 27	17 1	—	8	45 9	26	−25 6	6	24 0	....	....	....	....	6	6	8	3	6	2	5	3	9	16	16	62	II	V	28 S	2 70	— 0 60	13 13	5	0	1
Sudbury	46 27	80 55	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Savanne	48 55	90 18	1506	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
*Missanabie	48 21	83 28	....	....	....	....	....	10 9	— 2 4	10	40 0	30	−33 0	7	—	....	....	....	....	28	10	9	0	5	7	7	11	16	93	....	....	....	2 35	−0 71	0 60	8 23	0	0	0
*Sobreiber	48 50	87 15	....	....	....	....	....	16 2	....	8	35 0	24	−28 0	5	—	....	....	....	....	35	4	2	0	2	2	4	9	35	93	....	....	....	2 00	— 0 60	5 17	0	0	0
Barrie	44 23	79 41	839	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Erasmus	43 58	80 22	....	....	....	....	....	21 6	....	6	44 4	26	− 8 5	6	15 0	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2 93	— 0 70	15 7	0	2	2
Bloomfield	43 59	77 21	....	....	....	....	....	27 0	—	5	44 0	31	− 5 0	3	11 3	....	....	....	....	2	11	0	17	2	9	2	17	2	62	....	....	....	2 21	— 1 08	14 17	0	1	2
Calvin	46 15	78 48	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Parry Sound	45 15	80 0	635	29 88	30 37	29 18	1 19	24 2	+ 2 4	26	49 3	23	−12 2	5	30 9	....	....	7	4	21	57	201	41	43	66	157	125	33	744	11 2	21 7	4 W	3 51	+1 38	0 36	23	8	0	2	0
Saugeen	44 30	81 21	656	29 88	30 25	29 12	1 13	28 7	+ 1 1	27	47 8	23	− 2 0	2	16 3	....	....	7	13	4	6	20	6	3	6	7	5	5	62	....	29 3	6 W	4 68	−2 03	0 81	22	9	0	0	0
Owen Sound	44 34	80 55	597	....	....	....	....	26 2	+ 0 7	32	47 5	25	− 3 0	16	14 5	....	....	....	....	14	24	3	3	9	27	4	9	0	93	....	....	....	3 21	−0 77	0 45	18 13	0	2	0
Uplands	45 48	79 25	....	....	....	....	....	21 1	— 0 1	13	46 2	25	−17 4	6	21 1	....	....	....	....	3	2	1	8	2	8	0	7	0	31	....	....	....	3 57	−0 63	0 75	15 16	0	1	0
*a*Durham	44 10	80 50	....	28 48	28 79	27 92	0 87	23 7	— 1 5	18	48 0	25	− 8 0	6	17 4	....	....	7	10	6	4	0	14	16	25	0	27	0	92	N	VIII	3 S W	4 81	+1 66	0 80	16 14	0	0	1
Toronto	43 39	79 17	350	29 83	30 31	29 36	0 95	29 9	+ 1 1	60	45 6	25	0 0	6	13 7	30	79	7	9	29	196	26	23	19	149	159	137	6	744	10 4	28 1	19 N E	2 74	+0 10	0 40	15 12	0	2	0
Welland	42 59	79 17	....	....	....	....	....	30 8	+ 2 3	14	58 0	25	− 4 0	6	16 3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4 29	+1 43	0 80	19 10	0	2	4
Peterborough	44 17	78 19	722	....	....	....	....	25 6	— 0 6	30	45 0	28	− 9 0	6	18 5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3 20	+0 59	0 98	10 21	0	2	0

| | ° ′ | ° ′ | | in. | in. | in. | in. | ° | ° | | |

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MARCH, 1901.

a. Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	PRESSURE. Mean reduced.	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observt.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of Dewpoint.	Mean relative Humidity.	Mean amount of Cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	C.	Total number of Hours.	VELOCITY OF WIND Mean miles per hour.	Highest day's velocity.	Date and direction from	PRECIPITATION. Amount.	Difference from Average.	Heaviest fall in month.	Days with .01 or more.	No. of fair days.	No. of Auroras	No. of Thund.-storms	No. of Fogs.
	° ′	° ′		in.	in.	in.	in.																																
QUEBEC—(*Continued.*)																																							
*Cape Magdalen	49 16	65 20	....	....	....	....	....	22·2	+ 0·4	18	38·0	31	3·0		6	—	....	....	....	0	9	10	3	22	0	0	44	5	93	....	....	....	2·21	−0·73	0·62	12	19	1	0	3
Anticosti, W. Pt.	49 52	64 32	....	....	....	....	....	12·4	+ 2·0	18	46·0	31	0·0		11	—	....	....	....	....	1	....	....	....	....	....	....	1	....	....	....	3·62	+0·57	1·20	10	21	0	0	2
Anticosti, S.-W. Point.	49 24	63 35	30	....	....	....	....	....	....	....	....	....	....		....	....	....	....	....	5	9	11	8	18	6	11	25	0	93	....	....	....	....	....	....	....	....	....	....	....
Abitibi	48 43	79 22	....	....	....	....	....	13·0	....	5	41·0	26	−34·0		6	—	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
*Anticosti, E. Pt.	49 5	61 42	....	....	....	....	....	....	....	....	....	....	....		....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Bird Rocks	47 51	61 8	....	....	....	....	....	....	....	....	....	....	....		....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4·09	—	0·45	17	14	0	0	0
Sherbrooke	45 24	71 55	630	....	....	....	....	25·6	—	1	59·0	25	−18·9		3	18·6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	0·69	....	....	....	....	....	....
Pereé	48 31	64 12	50	....	....	....	....	....	....	....	....	....	....		....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
St. Agathe des Monts	....	....	....	....	....	....	....	20·2	—	2	44·0	25	−10·5		6	17·2	....	....	....	1	1	7	5	5	2	6	4	0	31	....	....	....	....	....	0·26	4	26	0	0	8
(*a*) St. Anne de la Pocatière	47 23	70 2	....	28·66	30·30	29·17	1·13	22·9	—		48·0	24	−9·4		3	18·8	18·2	79	6	10	4	18	0	0	2	23	3	3	9	62	II	V	4 SW	3·93	—	1·99	12	18	3	0	0
NEW BRUNSWICK:																																							
Fredericton	45 57	66 36	164	29·89	30·58	29·27	1·31	26·8	+ 1·0	28	47·8	22	−9·3		8	21·5	18·2	67	6	12	4	8	8	4	6	9	14	26	14	93	8·4	20·3	13 NW	4·55	+0·69	1·06	10	19	0	0	0
Chatham	47 3	65 29	21	29·87	30·57	29·20	1·37	23·9	+ 0·2	27	47·0	22	−16·0		7	23·1	....	....	....	5	8	2	5	14	1	1	5	13	7	14	62	.....	17·1	19 NW	2·70	−0·77	0·87	14	16	0	0	0
Grand Manan	44 47	66 46	49	29·88	30·54	29·20	1·34	31·1	+ 1·4	17	47·7	26	9·0		7	—	....	....	....	6	11	9	2	9	1	1	6	15	14	62	.....	32·0	19 NW	5·24	+0·86	1·41	18	9	1	0	1
*Point Lepreaux	45 4	66 28	30	....	....	....	....	30·6	+ 2·7	22	49·0	25	5·0		7	—	....	....	....	7	7	6	4	7	15	2	10	16	18	6	78	11	IV	11 SE	4·65	+0·14	1·49	13	14	0	0	4
St. John	45 17	66 4	70	29·91	30·46	29·52	1·34	29·8	+ 1·6	7	48·7	22	−1·5		3	13·5	26·3	78	7	12	60	96	30	103	52	144	76	141	42	744	11·5	23·4	12 NW	3·23	−0·70	0·64	15	16	0	0	2
Dalhousie	48 4	66 22	39	....	....	....	....	....	....	....	....	....	....		....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4·50	—	0·82	14	17	0	0	1
St. Stephen	45 11	67 16	35	....	....	....	....	26·1	—	4	48·9	24	−18·9		1	19·9	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·34	—	0·74	10	21	0	0	1
Moncton	46 9	64 45	....	....	....	....	....	27·1	—	3	47·0	21	−11·5		7	18·8	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·05	—	0·53	13	18	0	0	0
Sussex	45 38	65 38	....	....	....	....	....	26·5	—	4	48·0	22	−14·0		7	17·3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·50	....	0·90	9	19	0	0	2
Bathurst	47 39	62 42	....	29·91	30·68	29·29	1·39	23·2	− 1·2	24	48·0	24	−10·0		3	23·7	....	....	5	8	3	0	6	3	0	4	15	13	49	93	I	V	19 NW							
NOVA SCOTIA:																																							
Halifax	44 39	63 36	97	29·90	30·55	29·24	1·31	31·6	+ 1·6	27	50·4	22	9·2		7	14·4	....	....	6	13	222	6	75	67	121	26	125	47	55	744	10·5	22·5	27 E	4·11	−1·35	1·08	17	12	0	0	3
Sydney	46 10	60 10	55	29·83	30·58	29·32	1·26	28·7	+ 2·1	28	48·0	6	−0·5		4	15·5	....	....	7	14	26	33	49	74	14	151	103	139	155	744	5·8	16·0	19 NW	6·68	−1·75	1·58	14	18	0	0	9
Truro	45 22	63 18	73	29·90	30·55	29·12	1·43	28·8	— 0·7	27	53·0	22	−11·0		1	19·2	....	....	7	11	13	11	5	10	13	12	10	3	7	93	II	III	11 E	3·15	−0·60	0·54	15	13	3	0	2
Yarmouth	43 50	66 2	65	....	....	....	....	32·2	+ 1·0	21	49·2	23	8·0		7	12·5	....	....	7	12	2	69	82	74	29	107	154	144	3	744	11·1	20·8	22 W	4·86	+0·01	1·53	22	9	0	0	5
Pictou	45 42	62 41	....	....	....	....	....	27·8	— 0·4	23	50·0	22	3·0		3	13·1	....	....	....	....	17	5	5	9	16	20	1	14	6	93	III	VII	4 SE	3·52	−0·20	1·14	9	22	0	0	1
Port Hastings	45 39	61 22	45	....	....	....	....	27·8	— 0·4	23	50·0	22	3·0		3	9·6	....	....	....	....	3	3	2	4	0	5	1	13	0	31	....	....	....	3·16	....	1·75	5	2	0	0	5
*Whitehead	45 15	61 8	20	....	....	....	....	23·0	— 4·3	10	42·0	29	6·0		3	—	....	....	....	....	17	2	9	10	11	18	14	10	2	93	....	....	....	3·04	−0·79	1·51	5	26	0	0	9
*Sable Island, E. Pt.	43 58	59 46	25	....	....	....	....	24·0	— 4·3	17	39·0	24	11·0		3	—	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sable Island, M. station	44 28	64 25	40	....	....	....	....	....	....	....	....	....	....		....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·98	—	0·50	13	18	0	0	0
Parrsboro	45 23	64 19	40	....	....	....	....	28·3	—	5	48·9	9	−8·0		7	18·0	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·69	—	0·60	8	23	0	0	0
Wolfville	45 7	64 20	....	....	....	....	....	28·9	—	3	47·0	6	5·0		7	16·7	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·97	—	0·66	13	18	0	0	0
Bridgetown	44 49	65 16	....	....	....	....	....	29·3	—	2	50·5	22	0·0		20	17·4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
P. E. ISLAND:																																							
Charlottetown	46 14	63 10	38	....	....	....	....	27·1	+ 1·7	27	46·6	28	0·7		7	17·6	....	....	6	9	99	52	115	45	94	84	46	54	155	744	7·9	19·2	12 E	1·60	−1·61	0·30	10	19	0	0	1
Summerside	46 18	63 51	....	....	....	....	....	25·5	—	3	45·0	23	−2·1		7	16·0	....	....	....	....	13	5	6	16	8	6	5	9	0	62	....	....	....	1·67	—	0·29	11	20	0	0	1
Hamilton	46 25	63 48	....	....	....	....	....	24·6	—	3	44·0	23	0·0		7	17·2	....	....	....	....	7	1	2	2	5	3	1	10	0	31	....	....	....	3·94	—	1·49	5	26	0	0	0
Murray River	....	....	35	....	....	....	....	....	....	....	....	....	....		....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
NEWFOUNDLAND:																																							
St. John's	47 34	52 42	125	29·80	30·45	29·00	1·45	29·2	+ 1·6	29	50·0	6	5·0		4	16·6	....	....	7	10	40	6	6	6	0	5	3	2	0	62	.....	28·0	6 E	2·93	−1·86	0·90	15	16	0	0	6
Channell	47 34	59 9	20	....	....	....	....	24·0	+ 2·5	16	47·0	27	9·0		3	10·8	....	....	6	8	6	1	8	20	9	3	26	16	4	93	III	VI	4 S	2·20	−1·85	0·60	7	24	0	0	5
*Cape Norman	51 38	55 52	....	....	....	....	....	....	....	....	....	....	....		....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
*Amour Point	51 28	56 51	....	....	....	....	....	....	....	....	....	....	....		....	....	....	....	....	....	23	13	5	8	13	12	5	14	0	93	.....	....	....	2·55	−0·29	1·00	9	22	0	0	0
*Point Rich	50 42	57 25	35	....	....	....	....	25·9	+ 3·5	18	45·0	29	−6·0		3	—	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
BERMUDA:																																							
Prospect	37 20	64 50	151	29·81	30·45	29·56	0·89	62·4	− 0·3	10	73·0	14	51·2		9	11·2	....	....	7	3	4	5	0	5	7	17	2	13	9	62	.....	32·1	30 NW	8·55	+3·42	2·96	15	16	0	0	0

PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &c., DURING MARCH, 1901.

STATIONS.	Rainfall.					Snowfall.				Remarks.
	Amount in inches.	No of Days of or over	No. of Fair Days	Heaviest Fall in Month.	Date	Amount in inches.	No. of Days.	Heaviest Fall in Month.	Date.	
BRITISH COLUMBIA—										
Goldstream Lake	4 61	1	15	0 81	1					
Royal Oak	2 54	1	8	1 13	31					
Nanaimo	1 84	6	5	0 [illegible]	9					
Kuper Island	1 18	14	17	0 2	24					
Caulfields	3 46	17	14	0 [illegible]	27					
Vancouver	3 04	18	3	0 7	7					
Port Essington	12 16	28	13	3 40	14					
Naas Harbour	4 39	9	20	2·03	14	15·0	2	12 0	5	
N. W. TERRITORIES—										
Saltcoats						5 5	4	2 0	3	
Didsbury						8·0	5	6·0	11	
Innisfail						6·6	9	2·5	10	
Coutts						5 5	4	3·0	3	
Stirling						5·0	4	5·0	4-5	
Weyburn	R					6 6	7	2·0	12	
Beaver Hills N. E.	0·09	1	27	0·09	31	3·3	3	3·0	17	
egina						3·0	1	3 0	29	
Beaver Hills E						1·4	2	1·2	17	
Dirt Hills						3·5	3	3·0	28	
Cochrane						6·2	7	1·5	26	
MANITOBA—										
Norquay	0 02	1	26	0·02	3	7·5	4	4·5	13	
ONTARIO—										
Lion's Head	2 26	4		1 10	10					
Providence Bay	2 35	5	14	1 50	25	38 0	12	8·0	22	17th, heaviest storm ever seen here
Dutton	1 72	7	22	0 65	10	*	2			
Huntsville	3 50	4	20	1 65	10	16 5	7	4·5	14	
Lynedoch	2 60	2	25	1 30	26	1 7	4	1 0	21	
Ensdale	1 74	6	15	0 77	20	18 0	12	4 0	22	
Sunshine	0 77	3	14	0 50	25	23 0	15	4·0	22	
Wiarton	1 02	4	19	0 39	24	18 5	9	4·0	8	
Elgin	3 64	5	24	1·40	11	9 0	3	6 0	15	2nd, terrible gale.
Wyoming	1 00	4	24	0 50	10	*	3			
Oraogeville	1 40	4	20	1 10	10	30 7	8	11·1	8	
Princeton	2 07	3	20	1 11	10	13 0	7	5 0	14	
Uxbridge	0 46	2	23	0 40	14	15·0	6	6 5	13	
Ennismore	0 98	3	26	0 70	26	6·0	2	4 0	10	
Ursa	2·58	9	13	0 56	25	25 0	11	5 0	8	
Westport	1 56	5	11	0 56	26	7 3	15	3·0	8	
Kitley	1 15	3	22	0·70	12	5 5	4	2 0	9	
Aurora	0 99	7	14	0 45	11	16 5	6	5 8	8	
Watford	1 66	4		0 50	10					
Dealtown	1 81	12	15	0 57	10	2·0	6	2 0	22	
Arden	3 84	15	12	1·21	27	9 0	8	3·0	14	
Georgetown	1·24	8	10	0 43	11	18 2	17	4 5	8	
Goderich	1 80	4	25	0 60	25	8 0	3	3 0	14	
Deer Park	1 24	6	21	0 58	10	10 0	4	4·0	14	
Parma	2 68	5	20	0 97	26	13·0	6	4·0	14	
Midland	1 80	6	22	0 60	19	6·5	8	4 0	8	
Croydon	1 95	5	22	0 90	27	13 0	4	4 0	9	
Westminster	2 3	5	22	1 33	15	*	4			
Lansdowne	1 76	5	22	0 70	10	7 0	4	4 0	9	
Montague	2 45	5	21	0 90	11	8·0	5	3·0	8	
Jermyn	1 35	4	24	0 78	27	10 0	3	6 0	9	
Wooler	2 30	5	18	1 05	26	10 0	8	7 0	14	
Port Burwell	1 90	8	16	0 55	11	10·5	7	3 0	15	
Scarboro	1 43	6	13	0 41	10	13 8	13	7·0	8	
Oliver's Ferry	2 90	4	24	1·00	10	3 2	3	2·0	8	
Cayuga	0 74	4	16	0 28	20	7·7	12	3·0	15	
NEW BRUNSWICK—										
Point Escuminac	1 60	6	20	0 39	31	15·3	5	4 1	11	
NOVA SCOTIA—										
Port Morien	3·88	8	21	0 94	6	3 0	3	2·0	12	

PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY DURING WHICH THE SUN WAS ABOVE THE HORIZON IN THE MONTH OF MARCH, 1901.

	HOURS ENDING															
	5 A.M.	6 A.M.	7 A.M.	8 A.M.	9 A.M.	10 A.M.	11 A.M.	NOON.	1 P.M.	2 P.M.	3 P.M.	4 P.M.	5 P.M.	6 P.M.	7 P.M.	8 P.M.
Victoria	.....	.....	0·01	0 21	0·35	0 41	0·46	0 44	0·46	0·50	0·53	0·49	0·37	0·09	.....	.....
Nanaimo	.....	.....	0·02	0·12	0·25	0·30	0·26	0·32	0·32	0 34	0·36	0·40	0·42	0 21	.....	.....
Agassiz	.....	.....	0·00	0·02	0·22	0·29	0·35	0·31	0 31	0·26	0·19	0·16	0·04	0·00	.....	.....
Battleford	.....	0·02	0·16	0·26	0·46	0·51	0·56	0·50	0 64	0·70	0·60	0·51	0 35	0·02	.....	.....
Indian Head	.....	.....	0 00	0·03	0 18	0·45	0·51	0 55	0·59	0 59	0·52	0 44	0·16	0 00	.....	.....
Brandon	.....	0·09	0 37	0 44	0·49	0·48	0·58	0 59	0·59	0 55	0·49	0·37	0 06	0·00	.....	.....
Winnipeg	.....	0·00	0·10	0·38	0 49	0·54	0 64	0 61	0·64	0 64	0·62	0·59	0 45	0·06	.....	.....
Durham	.....	.....	0·00	0·10	0 13	0·13	0·16	0·26	0 32	0 32	0·32	0·35	0 35	0·19	0·10	.....
Woodstock	.....	.....	0 03	0·19	0·31	0·29	0·26	0·23	0·24	0 22	0 20	0·13	0·09	0 06	0·01	.....
Toronto	.....	S	0 19	0·31	0 30	0·34	0·36	0 39	0·37	0·39	0 46	0·37	0·20	0 00	.....	.....
Lindsay	.....	0 07	0·28	0·40	0·35	0 38	0·38	0·39	0·38	0 34	0·26	0·24	0 21	0·04	.....	.....
Barrie	.....	.....	0 08	0·24	0·26	0·34	0·31	0·33	0·35	0·30	0 43	0 36	0·30	0·09	0·03	.....
Kingston	.....	.....	0·02	0 19	0·33	0·34	0·30	0·25	0·24	0·25	0·24	0·25	0·15	0 02	.....	.....
Ottawa	.....	.....	0·04	0·20	0 25	0·32	0·37	0·33	0·27	0·20	0·22	0·25	0 16	0·05	.....	.....
Montreal	.....	.....	0·01	0·22	0·34	0·40	0·47	0 48	0·38	0·36	0 21	0·17	0 10	0·00	0·00	.....
Fredericton	.....	0·08	0 23	0·40	0·47	0 48	0·41	0·46	0·45	0·43	0·42	0·41	0·17	0·00	.....	.....

	Victoria.	Nanaimo.	Agassiz.	Battleford.	Indian Head.	Brandon.	Winnipeg.	Durham.	Woodstock.	Toronto.	Lindsay.	Barrie.	Kingston.	Ottawa.	Montreal.	Fredericton.
Mean Proportion for Month (*Constant sunshine being* 1.)	0·36	0·28	0·18	0·41	0·34	0·43	0·48	0·23	0·18	0 31	0·31	0·29	0·22	0·22	0·30	0 37
Difference from Average	−0·02	—	−0·07	−0·05	−0·03	−0·01	−0·03	−0 01	−0 13	−0 12	−0 13	−0·09	−0·22	—	−0·16	−0·05
Maximum Daily Amount	0·81	0·77	0·62	0·96	0·76	0 90	0·89	0·80	0·80	0·91	0·94	0·97	0·84	0·91	0 91	0·91
Date	23	23	20	4	5	5	27	6	31	16	16	29	16	16	16	17
No. of Days Completely Clouded	5	3	7	3	7	9	4	18	15	8	13	12	13	13	10	11

TEMPERATURE AND BAROMETRIC PRESSURE AT DAWSON, MARCH, 1901.

Day.	Temperature.			Barometer at 32°	Remarks.
	Maximum.	Minimum.	Range.		
	°	°	°	in.	
1.	— 3·3	—13·6	10·3	28·296	Cloudy.
2.	— 2·2	—10·2	8·0	28·889	"
3.	—13·1	—33·0	20·2	29·535	"
4.	4·5	—34·6	39·1	29·210	"
5.	10·5	—20·0	30·5	28·830	Light snow.
6.	36·0	— 1·5	37·5	28·612	Clear.
7.	40·0	2·7	37·3	27·870	"
8.	24·5	10·6	13·9	28·268	Cloudy.
9.	23·2	2·4	20·8	28·620	"
10.	7·0	2·3	4·7	28·845	
11.	10·2	— 6·9	17·1	28·595	
12.	15·0	— 3·1	18·1	28·639	
13.	7·8	— 0·6	8·4	28·579	
14.	4·0	— 4·4	8·4	28·605	
15.	7·2	— 8·0	15·2	28·815	
16.	16·3	—11·6	27·9	28·695	
17.	21·5	— 1·7	23·2	28·597	
18.	30·0	—10·9	40·9	28·826	
19.	37·0	— 4·3	41·3	28·203	
20.	40·5	5·6	34·9	28·405	
21.	32·0	4·9	27·1	28·485	Clear.
22.	39·5	3·0	36·5	28·528	"
23.	32·2	4·7	27·5	28·615	"
24.	33·1	9·1	34·0	29·729	"
25.	31·0	1·6	29·4	28·689	"
26.	27·1	— 1·6	28·7	28·700	Cloudy.
27.	33·5	1·2	34·7	28·665	Light snow.
28.	35·5	13·6	21·9	28·495	Clear.
29.	40·0	13·3	26·7	28·720	"
30.	28·7	15·8	12·9	28·513	Light snow.
31.	19·8	5·8	14·0	28·835	Clear.
Means.	21·6	— 2·3	23·9	28·642	
Mean Temperature.	9·6				

Thunder recorded on—

1. Garry Point.

10. Erasmus, Toronto, Parry Sound, Stratford, Gravenhurst, Coldwater, Westminster, Georgetown, Deal town, Sunshine, Dutton, Welland, Dunnville, Ridgetown, Birnam, St. George Point Clark, Port Burwell.

13. Cayuga, Dunnville.

17. Macleod (hail storm.)

21 Gatesgarth.

23. Gravenhurst, Wooler, Jermyn, Ennismore.

24. Lindsay, Ennismore, Kinmount.

25. Kinmount, Dunnville, Bruce Mines, Cockburn Island, Ridgetown (2 storms), Birnam, St. George, Agincourt, Point Clark, Stony Creek, Erasmus, Toronto, Parry Sound, Stratford, Gravenhurst, Guelph, Sturgeon Falls, Coldwater, Scarboro, Wooler, Midland, Deer Park, Georgetown, Dealtown, Ennismore, Princeton, Providence Bay.

26. Lindsay, London, Jermyn, Croydon, Aurora, Wyoming, Lakefield, Clontarf, Uplands.

27. New Westminster.

Appearance of Spring Birds, Etc. :—

Robins—Minnedosa, 27th ; Stratford, 18th ; London, 12th ; Gravenhurst, 24th ; Cayuga, 12th ; Scarboro, 23rd ; Jermyn, 24th ; Montague, 17th ; Croydon, 25th ; Midland, 26th ; Arden, 24 ; Dealtown, 13th ; Kitley, 23rd ; Westport, 24th ; Ursa, 25th ; Princeton, 18th ; Wiarton, 22nd ; Emsdale, 25th ; Lyendoch, 11th ; Huntsville, 27th ; Lakefield, 23rd ; Welland, 12th ; Meaford, 20th ; Port Hope, 24th ; Hamilton, 16th ; Clontarf, 26th ; Ridgetown, 12th ; Brantford, 18th ; Peterboro, 26th ; Lucknow, 18th ; Owen Sound, 21st ; Birnam, 16th ; Rocklyn, 24th ; Collingwood, 25th ; Orillia, 26th ; Agincourt, 24th ; Stony Creek, 14th ; Bloomfield, 23rd ; Erasmus, 24th ; Summerside, 26th ; Brome, 24th ; Tobacco Plains, 14th ; Port Stanley, 18th ; Alton, 15th,

Crows—Stratford, 11th ; Midland, 13th ; Arden, 4th ; Ursa, 18th ; Lakefield, 15th ; Meaford, 12th ; Clontarf, 17th ; Stouffville, 15th ; Peterboro, 18 ; Lucknow, 7th ; Owen Sound, 15th ; Beatrice, 20th ; Rocklyn, 4th ; Collingwood, 18th ; Bala, 18th ; Orillia, 4th ; Agincourt, 15th ; P. Clark, 7th ; Bloomfield, 3rd ; St. Stephen 18th ; Muskowpetung, 30th ; Haileybury, 23rd.

Chipping Sparrows—Muskowpetung, 26th.

Ducks—E. Beaver Hills, 30th ; Coutts, 11th ; Edmonton, 15th ; Medicine Hat, 28th ; Welland, 14th ; Owen Sound, 19th ; Rocklyn, 8th ; Chaplin, 27th.

Blackbirds—Montague, 17th ; Arden, 25th ; Westport, 26th ; Princeton, 12th ; Wiarton, 25th ; Lynedoch, 21st ; Welland, 22nd ; Meaford, 26th ; Stouffville, 30th ; Peterboro, 26th ; Lucknow, 25th ; Birnam, 20th ; Agincourt, 26th ; Bloomfield, 23rd ; Alton, 26th.

Grosbeaks—Bloomfield, 30th.

Woodpeckers—Qu Appelle, 22nd ; Erasmus, 26th.

Meadow Lark—Minnedosa, 27th ; Scarboro, 26th ; Princeton, 24th ; Meaford, 26th ; Rocklyn, 17th ; Tobacco Plains, 11th.

Greybirds—Alton, 27th.

Bluebirds—Stratford, 16th ; Scarboro, 26th ; Arden, 25th ; Princeton, 18 ; Lynedoch, 2nd ; Meaford, 23rd, Port Hope, 23rd ; Ridgetown, 14th ; Stony Creek, 18th ; Erasmus, 26th ; N. Nicomen, 15th ; Tobacco Plains, 16th ; Port Stanley, 18th.

Geese—Minnedosa, 27th ; Winnipeg, 24th ; E. Beaver Hills, 30th ; Weyburn, 17th ; Coutts, 11th ; Edmonton 15th ; Summerside, 18th ; Portage la Prairie, 28th ; Tobacco Plains, 10th ; Moose Jaw, 16th ; Chaplin, 21st ; Muskowpetung, 13th ; Manor, 9th ; Father Point, 22nd.

Frogs—Port Burwell, 25th ; Welland, 10th ; Bloomfield, 26th ; Alberni, 2nd.

Aurora recorded :—

Where the class of aurora is noted by the observer, it is given (I) being the brightest, (IV) the feeblest in brilliancy.

8. Haileyburg, IV.

12. Gravenhurst, II ; Coldwater, II ; Emsdale, II ; Red Deer, III ; Haileybury, III.

13. Battleford, II ; Truro, IV ; St. Anne de la Pocatière, IV ; Athabasca Landing, IV ; Red Deer, IV ; Chicoutimi.

16. Moose Jaw.

18. Quebec, IV ; Sturgeon Falls, IV ; Truro, IV ; Red Deer, IV ; Haileybury III.

21. Battleford, IV.

22. Minnedosa, III ; Barnardo, IV ; Haileybury, IV.

23. Minnedosa, II ; St. Anne de la Pocatière, IV ; Rat Portage, IV ; Cape Chatte, III ; Chicoutimi, Bowsman, IV ; Haileybury, IV ; Cape Magdalen

24. Minnedosa, III ; Grand Manan, IV ; Quebec, III ; Truro, III ; St. Anne de la Pocatière, Athabasca Landing, IV ; Channel Island, IV ; Red Deer, III.

27. Chaplin.

NOTES.

DRY WEATHER IN APRIL.

The regularity with which the land drying weather period occurs each spring in Canada is quite remarkable. This period, when little or no rain falls and there is much bright sunshine, may be expected almost invariably in April or sometimes late in March and usually lasts about a fortnight. During this period the land, soaked by previous rains and melted snow, is quickly dried, and unless the farmer is a laggard he will take the opportunity to plough and seed his land, for the chance let by will seldom occur again. In Manitoba and the North-west Territories where late summer frosts sometimes injure the ripening grain early sowing, in order that the grain may come to maturity before these frosts occcur, is most important. Unfortunately this dry period is sometimes so far extended that what might have been early cultivation, so much desired by the farmer, is spoiled by the slowness of germination of the seeds sown, and should cool weather occur, even a fall of rain will not help very much.

BIRDS AS WEATHER FORECASTERS.

Although most people are doubtless prepared to admit that one swallow does not make a summer there are many who long ago have determined that birds can forecast the weather for many days in advance. After watching for many years, however, and following carefully the course of the weather the writer, though for some years almost a believer, has been forced to conclude that in Canada at any rate the birds are at best only very poor weather prognosticators. In the vicinity of Toronto we have repeatedly seen numbers of migratory birds arrive during a mild period late in March or early in April, and almost immediately after their arrival the weather has turned so intensely cold that they were glad enough to take themselves south or south-east again without hardly taking time for a meal. Fortunately many of these birds can travel over fifty miles per hour, and having taken their breakfast here in the morning, they have plenty of time to arrive and prepare for dinner in New York on the same day. There are many instances on record of great destruction of bird life during storms which could have been avoided had the birds migrated to a place of safety outside of the storm's path, a hundred miles or so away. Although many birds take shelter during rain or hail storms they seldom appear to be aware of their approach and do not take cover until the storm is upon them when they are seen excitedly hunting for shelter. In one instance remembered by the writer when caught in a storm upon an exposed sand bar, and while lying under a boat, a swallow lighted upon his arm and remained there until the worst of the storm was over. Many similar instances might be cited, but doubtless they will occur to those interested in the subject of birds as weather forecasters.

MORNING WEATHER FORECASTS.

In addition to the 9 p.m. weather forecasts issued from the Central Office at Toronto which are published in the morning newspapers and are posted at all telegraph offices, forecasts are issued at 10 a.m. for the day of issue and the next, or 36 hours in advance. These predictions are posted at a number of places in the principal cities, at most lake and sea ports, and are published by evening newspapers. In these forecasts a special effort is made to predict the direction and force of the wind for the use of mariners. In order to obtain expressions o opinion as to the value of these morning forecasts letters from a large number of harbour masters in the Maritime Provinces of Canada was recently solicited. The result was most gratifying for in every instance without exception these harbour masters were loud in their praises, a number declaring that many ships, and consequently lives, had been saved since the inauguration of these forecasts and storm warnings. At ports, near which there is much fishing, the predictions are highly appreciated, and, as stated by the harbour masters, fishermen will now seldom venture out when a storm is predicted by the Central Office. To the forecast official such expressions are far more encouraging than a large percentage of verified prognostications.

LOW TEMPERATURE FOGS AT DAWSON.

In the meteorological returns from Dawson, Yukon Territory, for the past winter, entries of fog when the temperature was 40° or more below zero were repeatedly made, and upon applying to the observer for information regarding this phenomenon he replied as follows :—

"The fog over Dawson is caused by the condensation of the steam contained in the exhalations from stoves and heaters in Dawson. A large bulk of the wood used in this town contains a considerable percentage of moisture, and the coal that is used contains at least 10 per cent. Now as you know this is all converted into steam, comes through the stovepipes, and when the temperature reaches about 40° below zero it is held suspended over the town in the form of fog, which is more or less dense as the temperature lowers. At 60° below zero one could perceptibly feel it and notice its precipitation on the surface of the snow or any surface where there was no wind to disturb it. This extends to an altitude of four or five hundred feet above the town, which is easily proven by climbing the hill back of the town and getting above it. It does not extend more than a few hundred yards from Dawson, which is easily proven by crossing the river, because before you are two-thirds of the way across you are out of the cloud. The effects have been bad. A great many deaths resulted last winter from pneumonia, which, I believe, was largely engendered by breathing the ice which was contained in this fog. When the vapour (ice crystals) is melted it has a woody taste, or rather the taste and smell of creosote. Whether this is healthy to breathe into the system or not is a question I cannot discuss."

FORECASTS FOR MARCH, 1901.

The forecasts issued by this office at 11 p.m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of predictions issued during the month was 954. These were divided as follows :—

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully	No. Partly	No. Not	Percentage
Manitoba	81	66	8	7	86·4
Lake Superior	91	72	7	12	83·0
Lower Lake Region	114	97	8	9	88·6
Georgian Bay	114	95	7	12	86·4
Ottawa Valley	108	84	14	10	84·3
Upper St. Lawrence	109	85	18	6	86·2
Lower St. Lawrence	105	80	6	19	79·1
Gulf	108	83	6	19	79·6
Maritime Provinces	124	91	15	18	79·4
Total	954	753	89	112	83·6

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART,
Director.

Meteorological Office, Toronto,
26th April, 1901.

METEOROLOGICAL SERVICE, DOMINION OF CANADA.

Monthly Weather Review.

VOL. XXV APRIL, 1901. No. 4

LIBRARY JUL 1901

INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm signal agents. For the material used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

REMARKS UPON THE WEATHER.

The weather of April in districts west of Manitoba did not differ much from the normal but east of the North-west Territories it was somewhat milder than usual and the proportion of bright sunshine was below average. Temperatures well below the freezing point occurred in each Province and whilst vegetation was rather backward in the western portion of the country on the 30th, it was generally more advanced in the eastern portion.

In British Columbia the weather was in most districts a little cooler than usual, but in most localities the proportion of bright sunshine exceeded the average. The precipitation was almost normal, it being a little below average at some places and slightly above in others. Snow fell in many districts in the Upper Mainland early in the month and there were some severe frosts. Vegetation was somewhat backward on the 30th, but was little injured by frost and was generally in a healthy condition.

The weather in the North-west Territories, although differing a little in contiguous districts, was almost normal, the differences from average reported being generally small. The most important departures from these conditions occurred at Oonikup where the mean temperature was 4·0 above average and at Qu'Appelle where the precipitation was 3·98 inches in excess, due chiefly to a fall of 20 inches of snow on the 14th and 15th. Severe frosts occurred during the month, the temperature falling to —4°·6 at Qu'Appelle on the 17th, and —10·0 at Muskowpetung on the same date. Snow occurred frequently during the month, and on the 12th there was a heavy snow storm which was followed by three days of exceedingly cold weather. From the 20th onward the weather was much milder and plants, though backward, in several instances burst into flower and leaf.

The weather in Manitoba was somewhat better than in the Territories, it being generally milder than usual and although there was an exceedingly cold period from the 15th to 19th, temperatures exceeding 70° occurred at most places. The precipitation generally exceeded the average but the excess was small. The snow melted rapidly after the 1st and by the 7th the ground was bare. The mild weather which set in after the 20th hastened vegetation, and on the 30th it was almost normal.

In Ontario the weather was unusually mild and in districts contiguous to Lake Ontario the precipitation was somewhat in excess. In the northern portion of the Province dry weather prevailed, whilst elsewhere the precipitation varied with the district. Clouded skies were exceptionally frequent, but from the 25th to 30th there was almost continuous sunshine. The maximum temperatures which occurred generally on or about the 29th were at many places between 80° and 85°. Frosts were reported from all stations, but little damage was caused thereby and on the 30th vegetation was more forward than usual.

The weather in the Province of Quebec was milder and wetter than usual, both the temperature and precipitation being above average, excepting in districts contiguous to the Gulf of St. Lawrence where, on the contrary, it was a little drier than usual. Much dull weather and frequent strong north-easterly winds were recorded. At most places the minimum temperatures, which were below 30° everywhere excepting at Montreal, occurred on or about the 12th.

In New Brunswick the weather was characterized by high mean temperatures, much precipitation, frequent clouded skies, and strong westerly winds, all of which were in excess of average. From the 12th to the 18th

the weather in most districts was unusually fine and bright and vegetation, which up to the former date had been somewhat backward, made great progress, it being more forward than usual on the 30th. Frosts occurred everywhere but no damage to plant life was reported. Fogs were recorded on eight days at Point LePreaux and on nine days at Grand Manan.

The conditions in Nova Scotia were very similar to conditions in New Brunswick, the weather being in most districts milder, wetter and duller than usual. At a few places, however, on the contrary the precipitation was somewhat deficient. Easterly winds and fog were also exceptionally frequent and there were few fine days. Heavy easterly gales occurred on the 4th, 5th and 6th and at some places there was a snow storm on the 11th. Vegetation was in about average condition on the 30th.

In Prince Edward Island the weather was somewhat finer and drier than in the last two mentioned provinces, the mean temperature being also well above average. North-westerly winds prevailed generally, they being mostly moderate to fresh and not reaching the force of a gale. The minimum temperatures reported, which were well below the freezing point, occurred on the 3rd, and although there was frost after that date no damage to vegetation was recorded and generally plant life was more forward than usual on the 30th.—F. F. Payne.

ATMOSPHERIC PRESSURE.

The distribution of the mean atmospheric pressure was very remarkable; the extreme northern and eastern portions of the Dominion, from Manitoba to the Maritime Provinces, being as much as 0·25 of an inch above average; Southern Ontario, Western Alberta and Southern British Columbia showed a positive departure of 0·05, while Barkerville in Northern British Columbia shows a negative departure of 0·02 of an inch. These peculiar conditions amply account for the persistency of north-easterly winds over the larger part of the Dominion.

HIGH AREAS.

Several pronounced anticyclones passed over the Dominion, and it is noteworthy that the centres were almost invariably within the Canadian Territories and hence a preponderance of northerly and north-easterly winds between Manitoba and the Gulf of St. Lawrence. Movements were as a rule very slow, and in some instances it is difficult to chart positions with any degree of certainty. One of the most important areas appeared in Manitoba on the 6th, and within the following two days became very extensive and dominated the weather of Ontario and Quebec until the 13th. Another most important area appeared over British Columbia on the 7th, there hovered for a week and then passed into the North-west Territories and eastward, being centred north of the Lake Region on the 20th. What seems to have been a continuation of this same area was centred in the Maritime Provinces on the 27th, and the conditions were for the most part anticyclonic between the Great Lakes and the Gulf of St. Lawrence until the 30th.

LOW AREAS.

It is worthy of note that all the lows passed to the south of the Lake Region—an abnormal movement.

No. 1 moved as a shallow area from the west portion of the Gulf to the Ohio Valley, then during the 3rd, developed, moving east to the Atlantic; gales with snow and rain prevailing the while in the Lower Lake Region and St. Lawrence Valley, and there was an easterly gale with rain in the Maritime Provinces during the 4th and 5th. No. 2 appeared in the Western States on the 4th; it moved eastward south of the Lakes to the Middle Atlantic Coast, causing a moderate gale with rain late on the 5th on Lower Lake Michigan and next day near Lake Erie. During the night of the 6th it developed, and caused a general rain with high winds in the St. Lawrence Valley and Maritime Provinces on the 7th and 8th, then passed very slowly seaward. No. 3 was shallow throughout its course; between 11th and 15th it moved from Texas to the Middle Atlantic Coast and thence seaward, not directly influencing Canadian weather. It is not improbable that it may be identified with an area, which originated in the Canadian North-west about the 6th, but at present this is not certain. No. 4 was a shallow area, which originated in the North-west States and moved in an irregular course to the Lake Region and eastward; it caused a heavy snowfall in the eastern part of the North-west Territories and in Manitoba, and futher east was accompanied by local rains. No. 5 was the most important area of the month, it can be traced from near the Gulf of California to the West Coast of Florida between the 15th and 18th, thence it moved to Virginia and backed north-westward to Ohio giving a heavy north easterly gale and snow storms in Western Ontario lasting during the 20th and 21st; in its subsequent course a perfect loop was described and its centre passed away from the American Coast on the 25th and 26th. Rain fell in Quebec and the Maritime Provinces on the 22nd and 23rd. No. 6 moved from the North-west States and dispersed before passing east of Lake Superior. It caused rain and snow over a large part of the Canadian North-west and Manitoba on the 26th.

WINDS.

The most remarkable feature of the month as regards winds has been the marked persistency with which northerly and easterly winds have prevailed in the Dominion between Lake Superior and the Gulf of St.

Lawrence. Further west, in Manitoba and the Territories the general direction was also easterly, but with a more southerly tendency. In British Columbia but one moderate gale occurred, and fresh winds were the exception rather than the rule, and much the same will apply to the North west Territories and Manitoba. Further east, near Lake Superior the winds were most persistently light during almost the entire month.

From the Lower Lakes eastward in the St. Lawrence Valley and Maritime Provinces the wind mileage was considerable and in all districts strong winds were frequent, and there were gales on several days. The most severe gale on the Lower Lakes was from the north-east and north on the 20th and 21st, and in the St. Lawrence Valley from the 20th to 22nd; in the Gulf and Maritime the heaviest blow occurred between 4th and 6th, during which the force of a fresh gale was reached in most districts.

BRIGHT SUNSHINE.

The mean proportion of bright sunshine was above the average in British Columbia and the western part of the North-west Territories, and below average in all other parts of the Dominion. The excess in the west ranged from 0·05 per cent of the possible amount at Battleford to 0·08 per cent at Victoria, B.C., and the deficiency in Ontario, Quebec and the Maritime Provinces ranged between 0·06 at Woodstock and 0·14 at Kingston and 0·12 at Montreal. The highest percentage recorded were 0·57 at Battleford, 0·48 at Nanaimo, and 0·40 at Lindsay, Ontario.

TEMPERATURE.

The mean temperature of April was above average from Manitoba eastward, the positive departure ranging between 3° and 6° in nearly all districts, South-western Ontario and Western Manitoba alone shewing somewhat smaller departures. In the North-west Territories the mean temperature was very nearly normal, and in British Columbia there was a minus departure of from 1° to 2°.

The Highest and Lowest temperatures in each Province during April, 1901, were:

British Columbia,	81°·0 on 29th at Quesnelle.	0°·0 on 6th at Stuart's Lake.
North-west Territories,	87°·0 on 30th at Alameda.	—10°·0 on 17th at Muskowpetung.
Manitoba,	87°·0 on 30th at St. Albans.	— 1·0 on 1st at Elkhorn.
Ontario,	90°·0 on 28th at Sprucedale.	— 2·0 on 1st at White River.
Quebec,	80°·1 on 29th at Chicoutimi.	15·0 on 12th at Father Point.
New Brunswick,	85·0 on 28th at Bathurst.	9·0 on 15th at Bathurst.
Nova Scotia,	74°·5 on 29th at Bridgetown.	21·8 on 14th at Truro.
Prince Edward Island.	67°·1 on 28th at Charlottetown.	25°·0 on 3rd at Summerside.

PRECIPITATION.

The precipitation was with a few exceptions average or below in British Columbia and the North-west Territories, above average in Manitoba, below in the Lake Superior, Muskoka and Nipissing Districts, Gaspé Peninsula, Quebec, also Prince Edward Island, and generally above elsewhere. Between Regina, N.W.T., and Brandon, Man., there was unusually heavy snow on or about the 15th, when there was a fall to a depth of twenty inches at Qu'Appelle. In Ontario the heaviest precipitation was near Lake Ontario and the most abnormal feature was a snowfall of between four and six inches, which occurred on tht 20th, in connection with a storm movement northward across the Middle States.

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, APRIL, 1901

a Barometer not reduced to Sea Level * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet	PRESSURE. Mean reduced	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observt.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of Dewpoint.	Mean relative Humidity.	Mean amount of Cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of hours.	VELOCITY OF WIND. Mean, miles per hour.	Highest day's velocity.	Date and direction from.	PRECIPITATION. Amount.	Difference from Average.	Heaviest fall in month.	Days with .01 or more	No. of Thdr. days.	No. of Auroras.	No. of Thunder-storms	No. of Fogs.
	° ′	° ′		in.	in.	in.		°	°		°		°		°	°																in.	in.	in.					
BRITISH COLUMBIA:																																								
Victoria	48 24	123 19	85	30·05	30·45	29·48	0·97	46·0	— 1·0	16	59·3	30	32·4	7	11·8			6	5	92	46	40	91	78	177	128	50	18	720	8·6	18·0	1 sw	3·01	-0·61	1·25	12	17	1	1	0
Barkerville	53 2	121 35	4180	29·95	30·53	29·16	1·43	32·9	— 1·8	13	60·0	30	10·0	7	20·9			7	11	0	0	0	0	9	4	2	1	44	62		IX	21 sw	1·86	-0·04	0·70	8	29	0	0	0
Agassiz	49 14	121 51	52					46·3	— 0·1	20	71·0	30	28·0	7	18·2			0	11	52	0	0	0	20	0	18	0	0	90				3·19	— 1·5	0·78	12	18	1	0	0
Port Simpson	54 34	130 26	26	29·86	30·46	29·07	1·39	42·0	— 0·4	14	73·0	29	28·0	6	15·5					7	2	2	11	11	10	2	2	30	86	1	IV	12 s	5·13	— 2·13	1·00	17	15	0	0	0
Spence's Bridge	50 23	120 20	770					49·1	— 2·2	10	74·0	30	26·0	7	25·4																		0·01	-0·99	0·02	4	21	0	0	0
Hazelmere	49 3	122 43						46·4	— 0·9	6	66·0	27	27·0	3	22·1					0	29	1	10	3	17	0	0	0	60											
Revelstoke	51 0	118 6	1476																														0·17	-0·22	0·10	3	5	0	0	0
Kamloops	50 41	120 29	1193	29·96	30·50	29·15	1·35	48·3	— 8·6	8	5	11	26·4	7	24·1			6	10	0	1	5	6	7	5	3	5	28	60		IX	14 s	0·17	— 0·07	8·24	1	0	0	0	0
Princeton	49 29	120 29	1630					43·0	— 4·7	3	69·0	30	19·0	7	15·3																		4·87	— 1·87	1·56	7	5	0	0	0
Pilot Bay	49 33	116 55						44·1	— 6·6	3	63·0	30	30·0	7	21·9																		6·99	— 3·36	1·76	17	15	0	0	0
Rivers Inlet	51 39	127 15	20	30·00	30·52	29·36	1·16	42·0	— 7·6	9·1	58	28	27·0	6	17·0	37·0	84	5	6	1	1	4	1	0	7	11	1	61	90	1	III	21 se	1·20	— 0·40	0·92	4	22	0	0	0
Stuart's Lake	54 28	124 12	1800					30·0	— 8·5	6	50	30	0·0	6	24·1																		3·32	— 1·05	1·15	15	0	0	0	0
French Creek	49 20	124 36						44·6	— 8·7	2·0	59	30	28·0	15	21·4																		1·01	— 0·23	0·24	0	0	0	0	0
Coldstream	50 14	119 15	1246					45·9	— 5·6	7·0	69	30	23·0	26	23·5																		2·40	— 0·39	1·18	12	0	0	0	0
Nanaimo	49 10	123 57						45·4	— 1·6	7·5	30	30	27·4	8	17·9	38·3	72	5	2	9	2	8	27	2	1	11	12	18	9	11	VII	21 se	7·56	— 1·22	1·13	17	0	2	0	0
Chilliwack	49 10	121 57		30·01	30·38	29·43	0·95	47·0	— 6·9	1·1	70	30	28·0	3	20·5	39·3	80	5	1	4	11	25	4	11	17	14	4	0	90											
Quatsino	50 32	128 3						45·5	—																								0·60	— 0·30	3·27	0	0	0	0	0
Midway	49 5	118 46	1800							6·7	70	10	20·0	23	31·1																									
Enderby	50 32	119 7	1180																														0·48	0·14	0·36	6	23	0	0	0
Nicola Lake	50 9	120 39	2120					42·6	— 6·6	4·0	62	30	20·5	15	23·0																		2·01	— 1·10	1·19	9	0	0	0	0
West Kootenay	49 20	117 50						43·8	— 6·8	3·0	63	30	23·0	3	24·7																		3·13	— 1·05	1·13	17	0	2	0	0
Garry Point	49 21	123 17						44·6	— 6·1	6·0	59	30	29·0	3	14·8						2	8	14	14	16	5	14	14	3	90	11·0	22·7	4 se	0·77	— 0·17	8·22	4	0	0	0	0
Tobacco Plains	49 1	115 5	2300					42·2	— 6·4	6·4	3·1	17	23·1	4	19·0																		5·29	— 1·70	1·66	14	0	1	0	0
Vancouver	49 18	123 4	195					45·0	— 6·3	6·6	65·4	30	27·5	3	18·0																		5·05	— 1·53	1·63	14	0	0	0	0
New Westminster	49 13	122 54	330	30·06	30·47	29·43	1·04	45·3	— 6·6	5·8	30	30	27·2	3	17·1			6	10	1	1	19	1	9	8	6	2	13	60		9·3	14 s		2·71	— 0·55	1·19	9	0	0	0	0
a Ladner	49 5	123 4		30·03	30·42	29·42	1·10	43·4	— 2·6	9·0	63	28	28·0	3	15·5																		8·43	-2·28	1·81	17	12	0	2	0
N. Nicomen	49 12	122 2	59					45·8	— 2·2	9·6	9·0	30	28·0	3	19·9																									
Quesnelle	52 59	122 30	1700					45·5	—	9·8	1·0	29	19·0	3	34·4																		12·38	—	4·17	13	0	1	0	
Clayoquot	49 11	125 55	40					44·0	—	2·6	4·0	30	28·0	3	18·7																									
Cranbrook	49 30	115 50						38·9	—	1·6	9·0	30	18·0	8	25·3																									
Massett	53 58	132 9	30					37·8	—	4·6	8·0	30	10·0	7	22·7																		2·09	— 0·85	8·22	0	0	0	0	0
Quesnelle Forks	52 45	121 55																																					
Bella Coola	52 20	126 51	150																														2·43	-0·54	0·60	11	19	0	0	0
Duncan	48 45	115 50	40					44·9	— 2·2	10·6	8·0	30	24·0	15	24·1																		1·95	— 0·64	9·21	0	0	0	0	0
Nelson	49 29	117 21						45·7	—	2·6	9·0	18	26·0	3	22·9																		0·54	— 0·28	5·36	0	0	0	0	0
Okanagan Mission	49 52	119 29						44·5	—	2·6	7·0	30	22·8	15	26·0																		5·43	-0·41	1·38	13	17	0	0	0
Matsqui	49 7	122 16						45·4	— 1·8	12	68·5	30	27·0	2	19·6																									
Rossland	49 6	117 40	3400					43·7	—	7·7	4·1	30	26·9	15	18·7																		7·22	— 1·58	15·14	0	0	0	0	
Alberni	49 30	124 50	300																																					
N.-W. TERRITORIES:																																							
Medicine Hat	50 1	110 37	2161	29·97	30·60	29·29	1·31	45·1	— 0·8	17	80·4	29	15·5	8	30·1			6	3	5	3	1	3	17	10	10	3	8	60		25·3	11 sw		0·11	-0·63	0·15	3	25	1	0	0
Edmonton	53 35	113 30	2158	29·92	30·54	29·32	1·22	39·8	— 0·5	18	69·0	29	10·0	4	22·6			4	4	6	4	9	5	4	0	7	7	18	6		10·3	2 N		1·11	— 0·23	0·60	5	23	0	0	1
Swift Current	50 20	107 46	2439	30·02	30·56	29·34	1·22	43·5	— 2·2	15	83·0	30	17·0	16	23·0			4	2	1	2	1	11	11	11	9	3	2	60		26·7	21 w		0·42	— 0·51	0·32	4	24	0	2	2
Qu'Appelle	50 30	103 47	2115	30·05	30·54	29·47	1·07	37·6	— 0·1	17	78·2	30	— 4·6	17	17·2			6	6	2	3	3	17	18	2	4	8	3	60		23·0	30 NW		5·03	3·98	3·00	10	18	0	0	0
Calgary	51 2	114 2	3389	29·96	30·52	29·21	1·31	38·7	— 1·0	17	72·0	24	13·0	16	25·6			6	5	3	7	1	8	8	3	17	12	6	60		23·0	30 NW		0·48	— 0·36	0·40	3	24	0	1	4
Prince Albert	53 10	106 0	1402	30·01	30·55	29·26	1·29	38·0	+ 1·3	16	79·0	23	3·0	5	23·6			5	3	4	1	10	5	7	3	4	4	22	60		15·0	15 N		0·36	— 0·11	0·16	3	19	0	1	3
Battleford	52 41	108 20	1620	30·04	30·62	29·30	1·32	38·5	— 1·9	10	75·0	23	6·2	5	24·8			5	3	15	15	5	3	5	3	7	6	3	60										
Oookikup	53 30	101 20						36·9	— 4·0	10	72·0	24	5·5	5	24·4					6	3	4	4	2	5	4	13	5	2	21	60		VIII	6 sw	1·57	— 0·21	15·14	0	0	0	0	0
a Banff	51 10	115 35	4542	30·02	30·71	29·33	1·38	34·0	—	6·6	61·0	29	4·1	4	20·5																									
Calgary (2)	51 4	114 4																															0·37	-0·21	0·20	4	26	1	0	0
Chaplin	50 27	106 40	2202					43·9	+ 3·0	16	78·0	30	18·0	14	21·8																		0·18	— 0·15	3·27	0	0	0	0	0
Moose Jaw	50 21	105 35	1745					40·3	—	7·7	8·0	30	8·0	16	22·1																		1·08	— 0·06	0·41	6	19	0	0	0
Regina	50 27	104 37	1885					36·3	— 1·0	17	68·0	21	7·0	16	16·7																		1·71	0·59	1·04	7	23	0	0	0
Indian Head	50 28	103 40	1924					38·5	— 1·5	11	79·0	30	— 9·0	17	19·6																		78	— 0·50	2·32	9	0	2	0	0
Cannington Manor	49 43	102 2						36·5	—	6·6	65·0	21	8·5	18	17·2					1	2	9	15	14	0	1	3	8	60					0·80	— 0·50	2·26	0	0	0	0	0
Macleod	49 44	113 24						41·1	—	5·7	8·0	29	15·0	8	28·3					14	6	5	11	5	9	32	8	0	90											

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PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, APRIL, 1901

a. Barometer not reduced to Sea Level. •Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	Pressure. Mean reduced	Pressure. Highest.	Pressure. Lowest.	Pressure. Range.	Temperature. Mean.	Temperature. Difference from average.	Temperature. Years observed.	Temperature. Highest.	Temperature. Date.	Temperature. Lowest	Temperature. Date.	Temperature. Mean daily range.	Mean temperature of dewpoint.	Mean relative Humidity.	Mean amount of Cloud at time of observation.	No. of day completely cloudless.	Direction of Wind from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of hours.	Velocity of Wind. Mean miles per hour.	Highest day's velocity.	Date and direction from	Precipitation. Amount.	Difference from Average.	Heaviest fall in month.	Days with .01 or more	No. of Fair days	No. of Auroræ.	No. of Thund. storms	No. of Fogs.
	° ′	° ′		in.	in.	in.	in.	°	°																							in.	in.	in.					
ONTARIO—(*Continued.*)																																						
Windsor	42 20	83 4	....	....	....	....	....	45·8	+ 0·2	25	76·0	30	28·6	5	15·4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·17	−0·34	0·78	9	20	0	0	0
Alton	43 51	80 5	1250	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
*a*Guelph	43 33	80 16	....	....	....	....	....	44·9	+ 3·9	13	77·0	30	27·0	1	16·6	....	....	....	....	6	9	7	1	1	0	1	3	1	29	....	....	....	2·24	−0·64	0·81	8	20	0	0	2
•North Bruce	44 25	81 25	....	....	....	....	....	43·8	+ 2·6	12	76·0	29	26·0	2	—	....	....	....	....	9	12	13	13	0	12	23	8	0	90	....	....	....	1·05	−0·61	0·30	6	24	0	1	0
Collingwood	44 30	80 15	....	....	....	....	....	41·8	+ 0·4	10	69·0	30	24·0	2	14·2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3·48	—	1·44	7	23	0	0	0
Collingwood (2)	44 29	80 15	....	....	....	....	....	36·9	—	5	75·0	29	10·0	1	22·2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	9
Brockville	44 28	80 36	1339	....	....	....	....	41·0	—	1	76·5	30	20·0	2	15·6	....	....	....	....	6	5	1	0	10	15	10	4	0	60	....	....	....	2·15	—	0·55	10	19	0	0	6
Whiteside	45 0	79 30	....	....	....	....	....	45·6	+ 7·7	17	79·5	29	17·5	2	22·2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1·58	—	0·50	8	20	0	0	0
Spruecdale	45 30	79 40	....	....	....	....	....	45·3	+ 6·9	16	90·0	28	21·0	1	22·2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Orillia	44 34	79 24	....	....	....	....	....	44·4	+ 2·7	9	78·0	29	20·0	1	19·2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1·85	−0·14	0·71	11	19	0	0	0
Coldwater	44 38	79 40	....	....	....	....	....	44·1	+ 3·1	16	74·1	29	17·8	2	20·3	....	....	....	....	2	5	1	7	0	3	1	34	7	60	....	....	....	1·53	−0·57	0·39	7	23	0	1	0
Beatrice	45 8	79 20	....	....	....	....	....	44·7	+ 6·5	25	76·5	29	16·0	2	22·2	....	....	6	8	8	5	3	15	1	1	1	27	29	90	III	VI	8 NW	1·39	−0·71	0·51	4	25	0	0	0
Gravenhurst	44 55	79 20	770	....	....	....	....	44·9	+ 6·4	30	78·0	29	18·0	2	21·4	....	....	5	4	23	10	13	8	4	1	6	6	19	90	II	V	20 NE	1·56	−0·14	0·58	9	21	1	0	0
Huntsville	45 1	78 28	....	....	....	....	....	45·1	+ 4·1	12	81·0	28	15·0	2	23·7	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1·27	−0·45	0·61	13	17	0	0	0
•Point Clark	44 5	81 44	595	....	....	....	....	41·1	+ 2·4	28	72·0	29	27·0	1	—	....	....	3	0	43	11	13	3	7	5	5	2	1	90	III	VII	19 NE	0·35	−1·75	0·35	1	29	0	2	3
Birnam	43 2	81 55	....	....	....	....	....	43·8	+ 0·3	19	80·7	29	24·5	2	19·2	....	....	....	....	19	4	8	5	2	4	2	16	0	60	....	....	....	2·08	−0·08	0·46	8	21	0	0	1
London	42 59	81 12	808	30·07	30·56	29·52	1·04	45·8	+ 1·2	18	80·0	29	23·0	2	22·8	4	0	....	....	8	20	5	7	0	2	26	28	0	90	I	II	20 NW	1·57	−0·93	0·68	8	17	1	0	0
Port Stanley	42 40	81 13	502	30·07	30·52	29·51	1·01	43·7	+ 1·7	27	76·4	29	22·0	2	21·7	....	....	6	11	16	205	117	48	2	49	30	243	10	720	9·3	24·0	20 N	2·73	−0·26	0·81	15	14	0	0	0
Woodstock	43 8	80 47	980	30·05	30·59	29·59	1·00	45·4	+ 2·4	28	77·0	29	22·0	1	18·6	42·0	89	5	3	303	5	148	2	62	1	80	16	68	720	8·9	21·5	20 N	1·19	−0·83	0·51	4	25	0	0	0
Port Dover	42 47	80 13	635	....	....	....	....	42·1	— 0·5	25	67·7	30	22·0	1	20·1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1·69	−0·73	0·91	10	20	0	0	0
Pelee Island	41 50	82 38	....	....	....	....	....	40·6	— 3·6	22	60·0	18	29·0	1	16·2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1·76	−1·44	0·32	8	22	0	0	6
St. George	43 14	80 12	722	....	....	....	....	48·5	+ 4·9	16	79·0	29	30·0	2	20·1	5·6	9	10	39	2	0	0	3	26	10	0	90	....	....	....	3·06	−0·89	1·20	6	23	0	0	0
Paris	43 12	80 25	840	....	....	....	....	46·6	+ 2·2	11	83·0	29	24·0	2	23·4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·60	−0·30	0·98	10	20	0	0	0
St. Mary's	43 15	81 11	1040	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
•Biscotasing	47 3	82 8	....	....	....	....	....	42·0	—	7	78·0	28	5·0	2	—	....	....	....	....	0	6	6	35	31	0	0	12	0	90	....	....	....	1·25	—	0·25	3	27	0	0	0
Blomfield	43 59	77 21	....	....	....	....	....	46·7	—	6	71·0	29	28·0	2	17·9	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4·18	—	0·95	14	16	0	1	0
Calvin	46 15	78 48	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Agincourt	43 47	79 16	....	....	....	....	....	44·8	—	6	78·0	30	29·0	2	16·4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3·55	—	1·55	6	23	6	0	3
Pickering	43 39	79 4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Hamilton	43 16	79 54	303	....	....	....	....	45·9	+ 2·8	25	80·6	29	30·3	1	14·2	....	....	....	....	4	18	9	5	1	2	10	11	0	60	....	....	....	4·13	2·23	1·54	10	19	0	1	7
Port Hope	43 56	78 20	....	....	....	....	....	46·8	—	4	78·0	29	29·0	2	19·6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·97	−0·96	1·03	11	19	0	1	0
Kinmount	44 42	78 53	....	....	....	....	....	44·2	—	3	77·0	29	22·5	2	21·7	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1·22	—	0·39	8	22	0	0	0
Cockburn Island	45 57	83 18	610	....	....	....	....	40·2	—	4	72·0	29	20·0	2	21·6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1·57	—	0·67	7	23	0	0	3
Chatham	42 23	82 12	595	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	7	4	7	9	3	3	7	13	7	60	....	....	....	....	....	....	....	....	....	....
Dalhousie Mills	45 20	74 29	....	....	....	....	....	41·8	—	2	80·0	27	19·0	1	15·1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1·10	—	0·69	3	27	0	1	0
Meaford	44 37	80 37	....	....	....	....	....	40·3	—	3	75·0	29	24·0	1	15·2	....	....	....	....	19	5	2	2	2	3	2	5	20	60	....	....	....	2·23	—	0·92	6	24	0	0	4
Ruthven	42 3	82 41	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Listowel	43 44	80 58	....	....	....	....	....	43·9	—	7	80·0	30	24·0	2	19·7	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·11	....	0·50	7	23	0	0	0
Bruce Mines	46 18	83 55	....	....	....	....	....	43·8	—	3	76·0	25	20·0	2	23·5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1·22	—	0·72	8	27	0	0	0
Rat Portage	49 48	94 32	1087	....	....	....	....	41·2	—	2	69·4	24	16·4	1	19·17·9	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Dunnville	42 54	79 39	....	....	....	....	....	44·3	—	2	72·0	29	22·0	1	19·3	....	....	....	....	2	14	2	0	1	3	1	7	0	30	....	....	....	3·63	—	1·76	8	25	0	2	0
•Heron Bay	48 40	87 10	....	....	....	....	....	37·1	+ 3·2	11	69·0	28	10·0	1	—	....	....	....	....	15	15	3	3	0	6	25	2	21	90	....	....	....	1·72	−0·82	1·00	4	26	0	0	0
Sturgeon Falls	46 16	79 54	....	....	....	....	....	43·7	—	7	73·0	28	20·0	2	20·5	34·5	60	....	....	8	15	17	5	8	8	5	9	6	81	....	....	....	0·97	—	0·36	5	23	0	0	0
QUEBEC:—																																						
Montreal	45 30	73 35	187	30·05	30·48	29·61	0·87	43·6	+ 3·0	27	75·2	28	30·7	1	11·4	....	74	....	....	36	473	47	29	47	24	31	33	0	720	17·5	29·4	4 NE	4·19	−1·95	1·00	15	14	0	0	2
Richmond	45 40	72 8	435	....	....	....	....	43·6	+ 4·7	24	78·5	29	16·5	1	12·20·1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3·32	−1·29	0·74	12	18	0	0	0
Brome	45 10	72 36	....	....	....	....	....	43·4	+ 5·1	21	72·0	28	19·0	1	12·18·9	....	....	6	15	22	13	30	3	7	7	4	4	0	90	....	....	....	2·60	−1·10	0·68	8	17	0	0	0
Quebec	46 48	71 13	296	30·11	30·50	29·68	0·82	40·0	+ 4·5	27	76·5	28	23·0	1	12·13·1	....	....	7	16	2	597	29	6	0	57	15	0	14	720	19·0	45·0	26 NE	2·58	−0·44	0·53	16	14	0	0	1
Chicoutimi	48 25	71 5	150	....	....	....	....	40·9	+ 5·0	22	80·1	29	19·4	1	12·22·3	....	....	6	9	6	9	0	21	0	26	0	12	22	90	....	....	....	1·80	0·00	0·36	7	23	0	0	1
Father Point	48 31	68 19	20	30·16	30·47	29·72	0·75	35·7	+ 2·9	24	56·4	28	15·0	1	12·13·5	....	....	6	12	92	245	196	28	23	77	45	9	29	720	16·2	44·0	5 E	1·89	0·31	0·53	12	15	1	0	2
Cape Chatte	49 6	66 45	....	....	....	....	....	37·7	+ 4·1	17	55·0	28	26·0	1	—	....	....	....	....	1	11	23	0	0	11	6	0	38	90	....	....	....	—	—	—	—	—	0	0	4
Bicquette	48 28	68 55	....	....	....	....	....	34·7	0·0	12	50·0	28	27·0	1	—	....	....	....	....	3	64	0	0	2	12	0	0	3	84	....	....	....	....	....	....	....	....	....	....
•Cape Magdalen	49 16	65 20	....	....	....	....	....	37·9	+ 4·7	18	63·0	18	25·0	1	—	....	....	....	....	5	14	6	8	16	1	4	23	13	90	....	....	....	2·48	−0·61	0·50	10	20	0	0	4
Anticosti, W. Pt	49 52	64 32	....	....	....	....	....	37·5	+ 6·1	18	53·0	15	22·0	1	—	....	....	....	....	7	12	15	19	18	2	5	12	0	90	....	....	....	1·12	−0·67	0·78	6	24	0	0	1
Anticosti, S.W. Pt	49 24	63 35	30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	0·85	−1·35	0·36	6	24	0	0	2
Abitibi	48 43	79 22	....	....	....	....	....	39·6	—	4	70·0	27	14·0	1	19	—	....	6	5	11	2	5	0	9	0	1	7	55	90	I	III	17 S	1·57	—	0·38	6	24	0	0	0

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PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER, &c., DURING APRIL, 1901.

STATIONS.	Rainfall. Amount in inches.	No. of Days '01 or Over.	No. of Fair Days.	Heaviest Fall in Month.	Date	Snowfall. Amount in inches.	No. of Days.	Heaviest Fall in Month.	Date.	Remarks.
British Columbia—										
Nanaimo	2·36	10	20	0·54	21	0·5	1	0·5	2	[24th and 26th.
Kuper Island	2·46	13	17	0·84	1	.....	.....	.....	.....	Frost on 3rd, 7th, 15th, 16th, 17th,
Royal Oak	3·37	13	17	1·00	4	.....	.....	.....	.....	20th, thunder storm with hail.
Goldstream Lake	5·01	15	15	2·13	1	22·0	3	12·0	4	
Caulfields	4·61	18	12	1·21	1	.....	.....	.....	.....	5th, hail
Vancouver	5·27	16	14	1·70	1	.....	.....	.....	.....	24th, thunder storm.
Naas Harbour	2·66	14	13	1·05	6	10·0	3	4·0	13	17th, swallows.
Port Essington	6·62	20	10	0·93	1	.....	.....	.....	.....	
N. W. Territories—										
Cochrane	0·22	1	23	0·22	30	15·7	7	6·0	6	
Stirling	.....	.....	.....	.....	.....	1·0	1	1·0	3	Extremely dry all month.
Saltcoats	0·21	3	24	0·10	25	11·0	3	6·0	15	
Innisfail	0·27	3	23	0·25	30	9·5	3	4·5	2	17th, thunder storm with hail.
Weyburn	1·48	8	21	0·70	27	8·0	3	3·0	14	20th, warm; seeding commenced.
Coutts	.....	.....	.....	.....	.....	2·0	1	2·0	26	
Didsbury	R	...	25	R	30	8·5	7	5·0	12	10th, thunder storm.
Strathcona	0·14	3	22	0·07	20	11·0	5	7·5	2	
Beaver Hills	0·94	5	23	0·73	7	16·5	6	10·0	2	18th, sowing wheat.
egina	1·08	6	23	0·46	15	9·0	3	5·0	16	
Beaver Hills E	0·15	1	27	0·15	29	6·0	2	6·0	2	
Dirt Hills	1·15	4	25	0·50	14	19·0	3	10·0	26	
Manitoba—										
Norquay	0·65	4	22	0·29	25	3·5	5	3·5	16	25th, thunder storm
Clear Spring	0·78	2	27	0·48	26	.....	.....	.....	.....	24th, 25th, 26th, thunder storms.
Morden	1·03	2	26	0·90	24	7·5	2	5·0	15	24th, thunder storm.
Selkirk	1·19	4	25	0·52	26	4·0	1	4·0	15	Thunder on 24th, 25th and 26th.
Pembina Crossing	0·48	2	26	0·28	25	.....	3	.....	.....	Thunder on 24th, 25th and 26th.
Oak Lake	.....	.....	.....	.....	.....	8·0	2	5·0	15	0th terrible heat.
Cartwright	0·31	3	23	0·19	28	incl. rain	3	—	15	5th, thunder storm, 21st terrible
Beaver Creek	0·78	3	27	0·42	15	.....	.....	.....	.....	[gale.
Belmont	0·13	4	24	0·08	12	.....	3	.....	.....	5th, thunder storm.
Moncton	1·04	3	25	1·00	27	4·0	3	2·5	15	
Oakbank	1·34	5	21	0·62	26	.....	4	.....	.....	Thunder, 24th, 25th and 26th.
Ontario—										
Ursa	1·19	8	22	0·34	18	2·0	3	2·0	20	
Princeton	2·06	6	22	1·05	23	12·0	2	12·0	20-21	
Huntsville	1·00	5	25	0·60	18	*	3	*	.....	
Lion's Head	1·99	4	26	0·85	18	.....	.....	.....	.....	
Deer Park	2·57	8	21	0·85	20	9·0	2	9·0	20-21	
Croydon	2·83	5	26	0·51	22	1·5	1	1·5	20	
Westminster	2·99	7	22	1·31	23	1·0	1	1·0	20	
Wyoming	0·95	2	25	0·75	18	.....	.....	.....	.....	
Arden	2·93	12	18	0·66	22	2·0	1	2·0	20	19th, ice broke up in lake.
Georgetown	2·52	8	19	0·72	22	6·8	3	6·8	20	Fog on 5th, 6th, 22nd, 23rd and 24th
Midland	2·23	9	21	0·60	20	*	3	*	.....	Fog heavy on 21st.
Jermyn	3·40	6	25	1·11	21	*	1	*	21	
Scarboro	3·72	8	18	1·68	21	*	2	*	20	22nd, thunder storm.
Wiarton	1·79	8	22	0·53	21	4·5	2	2·5	20	15th, bay clear of ice.
Watford	1·50	5	25	0·65	18	.....	.....	.....	.....	
Aurora	2·56	11	19	1·69	22	5·4	4	5·0	21	
Westport	1·78	7	23	0·58	20	*	1	*	3	
Kitley	2·80	7	23	0·71	22	1·0	1	1·0	20	
Uxbridge	3·00	7	23	1·23	20	4·0	3	4·0	20	
Cayuga	3·43	9	16	1·31	20	9·5	4	9·5	20	
Oliver's Ferry	2·03	10	20	1·10	20	.....	.....	.....	.....	
Sunshine	0·97	5	24	0·45	19	1·8	2	1·8	21	
Goderich	1·16	2	28	0·60	21	4·0	2	2·0	24	
Lynedoch	2·46	6	19	1·53	22	12·9	5	12·2	20	
Port Burwell	1·81	8	21	0·65	21	7·0	3	7·0	20	
Dutton	1·42	3	26	0·75	18	*	2	*	20	
Emsdale	1·80	11	17	0·72	19	*	6	*	.....	
Lansdowne	1·74	8	21	0·90	19	2·0	3	2·0	4	
Parma	3·72	9	21	0·95	4	3·0	2	3·0	20	
Montague	4·62	7	22	1·30	18	0·5	1	0·5	3	
Wooler	4·85	12	18	1·34	20	2·0	2	2·0	20	
Dealtown	1·96	10	20	0·79	21	*	1	*	20	
Eamsmore	2·15	3	26	1·00	22	2·0	1	2·0	20	
Orangeville	3·56	8	20	1·10	20	6·7	3	5·0	4	
Elgin	4·53	12	18	1·95	21	*	2	*	.....	
New Brunswick—										
Point Escuminac	3·26	9	21	1·25	9	.....	.....	.....	.....	
Nova Scotia—										
Port Morien	1·61	6	24	0·49	12	6·0	1	6·0	12	

PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY DURING WHICH THE SUN WAS ABOVE THE HORIZON IN THE MONTH OF APRIL, 1901.

	HOURS ENDING															
	5 A.M.	6 A.M.	7 A.M.	8 A.M.	9 A.M.	10 A.M.	11 A.M.	NOON.	1 P.M.	2 P.M.	3 P.M.	4 P.M.	5 P.M.	6 P.M.	7 P.M.	8 P.M.
Victoria	.....	0·00	0·26	0·50	0·54	0·62	0·69	0·70	0·68	0·62	0·53	0·49	0·43	0·35	0·04	.....
Nanaimo	.....	0·05	0·29	0·44	0·50	0·61	0·65	0·58	0·52	0·58	0·58	0·55	0·52	0·47	0·17	.. .
Agassiz	.....	0·00	0·00	0·14	0·37	0·47	0·49	0·47	0·53	0·52	0·50	0·41	0·29	0·07	0·00	.....
Battleford	0·10	0·37	0·53	0·61	0·63	0·55	0·64	0·78	0·69	0·71	0·65	0·62	0·55	0·41	0·02	.....
Indian Head	.....	0·01	0·00	0·17	0·39	0·45	0·45	0·45	0·50	0·53	0·60	0·56	0·35	0·18	0·10	.....
Brandon	.....	0·24	0·39	0·44	0·69	0·57	0·62	0·55	0·55	0·50	0·47	0·40	0·24	0·11	0·00	.....
Winnipeg	.....	0·10	0·29	0·43	0·43	0·48	0·47	0·56	0·54	0·53	0·52	0·47	0·44	0·24	0·06	.....
Durham	.....	0·00	0·03	0·30	0·42	0·45	0·49	0·47	0·47	0·47	0·44	0·48	0·47	0·22	0·00	.....
Woodstock	.....	0·02	0·17	0·39	0·42	0·50	0·61	0·53	0·53	0·50	0·42	0·35	0·31	0·30	0·02	.....
Toronto	.....	0·01	0·21	0·39	0·44	0·45	0·47	0·50	0·47	0·47	0·42	0·45	0·44	0·42	0·13	.....
Lindsay	.....	0·06	0·29	0·34	0·40	0·42	0·46	0·49	0·48	0·53	0·48	0·43	0·38	0·34	0·26	0·01
Barrie	.....	0·04	0·39	0·42	0·42	0·44	0·48	0·44	0·43	0·47	0·46	0·44	0·44	0·36	0·01	.....
Kingston	.....	0·02	0·21	0·42	0·40	0·48	0·49	0·47	0·50	0·44	0·44	0·40	0·34	0·18	0·01	.....
Ottawa	.....	0·05	0·25	0·33	0·36	0·39	0·39	0·42	0·39	0·38	0·40	0·40	0·42	0·32	0·06	.....
Montreal	.....	0·01	0·25	0·30	0·36	0·41	0·41	0·45	0·50	0·50	0·49	0·44	0·39	0·19	0·00	.....
Fredericton	0·02	0·30	0·38	0·38	0·41	0·42	0·41	0·45	0·45	0·40	0·41	0·39	0·34	0·13	0·07	.....

	Victoria.	Nanaimo.	Agassiz.	Battleford.	Indian Head.	Brandon.	Winnipeg.	Durham.	Woodstock.	Toronto.	Lindsay.	Barrie.	Kingston.	Ottawa.	Montreal.	Fredericton.
Mean Proportion for Month (*Constant sunshine being* 1.)	0·47	0·48	0 31	0·57	0 34	0 41	0·40	0 35	0·37	0 38	0·40	0·38	0·35	0 34	0 39	0 36
Difference from Average	+0·08	—	+0·07	+0 05	—0·04	—0·03	—0·10	—0·10	—0 06	—0·12	—0·11	—0·07	—0·14	—	—0·12	—0·10
Maximum Daily Amount	0·87	0·95	0·80	0·98	0·74	0·89	0·90	0·90	0·85	0·90	0 98	0·92	0·83	0·88	0·98	0·93
Date	15	15	15	4	13	22	19	8	9	11	10	9	11	26	28	28
No. of Days Completely Clouded	2	1	6	1	10	2	7	12	7	9	11	11	10	12	11	12

Thunder recorded on :—

7. Bermuda.

17. Red Deer, Otonabee.

18. Dalhousie Mills.

20. Chilliwack, N. Nicomen, Garry Point, Victoria.

21. Coldwater, Lindsay, Clayoquot.

22. Port Hope, Scarboro, Stouffville, Peterboro, Otonabee, Bloomfield, Bermuda.

23. Chilliwack, N. Nicomen, Chaplin, Alameda, Manor, Garry Point, Lakefield, Swift Current.

24. Rat Portage, Beaver Hills, Vancouver, Clear Spring, Manor, Portage la Prairie, Prince Albert, Selkirk, Pembina Crossing, Morden, Oakbank, Oonikup.

25. Stony Mountain, Barnardo, Clear Spring, Norquay, Portage la Prairie, Swift Current, Belmont, Selkirk, Pembina Crossing, Oakbank, Cartwright, St. Albans.

26. Stony Mountain, Rat Portage, Clear Spring, Selkirk, Pembina Crossing.

29. London, Nicola Lake, Point Clark.

30. Red Deer, Hillview, Point Clark, Hamilton, Battleford, Oonikup.

Aurora recorded :—

Where the class of aurora is noted by the observer, it is given (I) being the brightest, (IV) the feeblest in brilliancy.

7. Channel Island, IV.

12. Victoria, IV.

13. Father Point, III.

15. Red Deer, II.

17. Barnardo, IV ; Channel Island, IV ; St. Albans, III.

18. Barnardo, IV ; Bowsman, IV ; St. Albans, III.

19. Bowsman, IV.

21. Gravenhurst, IV ; Bowsman, IV.

22. Barnardo, IV ; Channel Island, IV.

23. Medicine Hat, IV.

24. Port Arthur, II.

Appearance of Spring Birds, &c. :—

Swallows.—Gravenhurst, 26th ; Brome, 16th ; Okanagan Mission, 6th ; Port Hope, 12th ; Scarboro, 12th ; Alberni, 13th ; Ridgetown, 28th ; Lakefield, 25th ; Agincourt, 27th ; Minnedosa, 30th ; Port Arthur, 27th ; Pembina Crossing, 24th.

Humming Birds.—Rivers Inlet, 17th ; Alberni, 12.

Robins.—Okanagan Mission, 2nd ; Strathcona, 16th ; Norquay, 4th ; Crescent Lake, 10th ; Muskowpetung, 10th ; Red Deer, 15th ; Hillview, 7th ; Bowsman, 19th ; Portage la Prairie, 9th ; Upland, 2nd ; Whitford, 20th ; Channel Island, 12th ; Haileybury, 14th ; St. Albans, 8th ; Oonikup, 12th.

Blackbirds.—Port Hope, 5th ; Red Deer, 21st ; Bowsman, 5th ; Princeton, 9th ; Lakefield, 8th ; Paris, 12th ; Bala, 6th ; Erasmus, 2nd ; Oakbank, 13th.

Ducks.—Barnardo, 6th ; Abitibi, 12th ; Strathcona, 14th ; Crescent Lake, 3rd ; Athabasca Landing, 10th ; Muskowpetung, 4th ; Hillview, 1st ; Peterboro, 6th ; Channel Island, 24th ; Moncton, 6th ; Oonikup, 12th.

Blue Birds.—Knee Hill, 23rd ; Red Deer, 22nd ; Lucknow, 10th ; Lakefield, 18th.

Geese.—Barnardo, 1st ; Abitibi, 13th ; Beaver Hills, 27th ; Athabasca Landing, 10th ; Muskowpetung, 7th ; Hillview, 2nd ; Bowsman, 10th ; Clayoquot, 10th ; Peterboro, 6th ; Beatrice, 24th ; Qu'Appelle, 7th ; Channel Island, 10th ; Oonikup, 8th.

Crows.—Knee Hill, 5th ; Red Deer, 6th ; Portage la Prairie, 2nd ; Channel Island, 6th.

Meadow Lark.—Port Hope, 6th ; Knee Hill, 12th ; Muskowpetung, 10th ; Hillview, 8th ; Portage la Prairie, 8th ; Lakefield, 23rd ; Agincourt, 2nd ; Qu'Appelle, 18th ; St. Albans, 3rd.

Frogs.—Truro, 9th ; Stratford, 8th ; Barnardo, 19th ; Gravenhurst, 14th ; Brome, 15th ; Summerside, 18th ; Red Deer, 11th ; Hillview, 11th ; Bowsman, 13th ; Portage la Prairie, 23rd ; Lucknow, 2nd ; Clontarf, 15th ; Sussex, 8th ; Strathcona, 15th ; Midland, 16th ; Athabasca Landing, 16th ; Alameda, 10th ; Muskowpetung, 13th ; Rocklyn, 14th ; Paris, 17th ; Sprucedale, 15th ; Birnam, 3rd ; Beatrice, 11th ; Bala, 9th ; Erasmus, 15th ; Qu'Appelle, 23rd ; Haileybury, 23rd ; Oakbank, 13th ; Moncton, 10th ; Pembina Crossing, 7th ; Oonikup, 21st.

FORECASTS FOR APRIL, 1901.

The forecasts issued by this office at 11 p.m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of predictions issued during the month was 806. These were divided as follows:—

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Percentage
Manitoba	82	70	8	4	90·2
Lake Superior	88	75	5	8	88·1
Lower Lake Region	94	73	10	11	83·0
Georgian Bay	94	76	10	8	86·2
Ottawa Valley	95	76	7	12	83·7
Upper St. Lawrence	95	74	12	9	84·2
Lower St. Lawrence	82	66	12	4	87·8
Gulf	80	65	8	7	86·3
Maritime Provinces	96	73	16	7	84·4
Total	806	648	88	70	85·9

PACIFIC COAST DIVISION.

The forecasts are issued by this Division at 8 p.m. and are for the 24 hours beginning at 5 a.m. the following day.

DISTRICTS.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Percentage.
Victoria and Vicinity	130	87	15	28	72·7
Lower Mainland	120	72	20	28	68·3
Total	250	159	35	56	70·6

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART,
Director.

Meteorological Office, Toronto,
26th May, 1901.

METEOROLOGICAL SERVICE, DOMINION OF CANADA.

Monthly Weather Review.

VOL. XXV MAY, 1901. No. 5

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INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm signal agents. For the material used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

REMARKS UPON THE WEATHER.

The weather of May was generally milder than usual excepting in British Columbia and southwestern districts of Ontario where the mean temperature was about average. The rainfall was somewhat above average in the North-west Territories, Ontario, portions of Quebec and Nova Scotia and average or slightly below elsewhere. In the western portion of the country the proportion of bright sunshine was above average whilst over the eastern half it was generally below. Frosts occurred in each province but little damage to vegetation was reported and on the 31st plant life in most localities was in excellent condition.

In British Columbia the weather did not depart much from the normal, the mean temperature and rainfall being about average and most other conditions differing but little. During the early portion of the month dull cold weather prevailed generally, but after the 10th it became milder; and towards the end of the month, when there was much bright sunshine, it was quite warm, the snow on the mountains quickly melting and threatening floods. Frosts occurred in many districts but no damage to vegetation was reported.

The weather in the North-west Territories was much milder than usual, the mean temperature being considerably above average whilst the rainfall with few exceptions was also somewhat in excess. Cool weather with frequent clouded skies prevailed early in the month but altogether the proportion of bright sunshine was much above average, and although light frosts occurred generally, reports regarding the condition of vegetation were most favourable.

The chief characteristics of the weather in Manitoba were exceptionally high mean temperatures, a somewhat deficient rainfall, and an excessive amount of bright sunshine, the latter being considerable above average. Between the 5th and 13th, also on or about the 25th, frosts occurred at many places and on the 10th and 11th snow fell in some districts. Some slight damage to vegetation was caused by frost but plant life was generally more advanced than usual on the 31st and was in excellent condition.

In Ontario the weather did not depart much from the normal, it was however somewhat milder than usual at most places, excepting in the southwestern portion and locally in districts contiguous to Lake Ontario, where the temperature was average or below. The rainfall was slightly in excess of the average, excepting in some districts in the extreme eastern and western portions, where it was normal or somewhat below. During the first twelve days there was much fine mild weather, after which it was cooler than usual, the sky being frequently clouded and the proportion of bright sunshine being considerably below average. Frosts were reported from many districts, the lowest temperatures occurring at most places on or about the 15th, little damage however appears to have been done to vegetation which was well advanced and in a healthy condition on the 31st.

The weather in the Province of Quebec was somewhat milder than usual whilst the rainfall, which did not differ much from average, varied with the district. Winds from an easterly direction prevailed and with much cloudy weather the conditions were not conducive to rapid growth in vegetation, nevertheless plant life was in average condition on the 31st. Frosts occurred at a few places but no damage was reported.

In New Brunswick the weather conditions were similar to conditions in Quebec, the mean temperature being slightly above average, the rainfall variable, and clouded skies being unusually frequent. The highest temperatures, which exceeded 85° at several places occurred on or about the 22nd, and the lowest temperatures

which were below the freezing point at many places were recorded during the first week. Vegetation was reported as being considerably in advance of average and in good condition.

The weather in Nova Scotia was milder than usual, and in most districts the rainfall was in excess of average. Fine bright weather alternated frequently with clouded skies and showers of rain, the winds being generally from an easterly direction. Frost occurred at some places early in the month but caused little damage to vegetation, which on the 31st was reported as considerably in advance of average.

In Prince Edward Island the weather was exceptionally fine, mild and dry, more especially from the 14th to 27th. The highest temperatures, which occurred generally on or about the 22nd, were between 70° and 80° whilst the lowest temperatures were reported during the first week. Frosts were recorded at all stations but apparently no damage was caused thereby. Vegetation was in good condition on the 31st.—F. F. Payne.

ATMOSPHERIC PRESSURE.

The largest departure from average occurred over the country immediately to the eastward of and including part of Manitoba and over Southern and Eastern Ontario the departures being respectively positive to the extent of 0·10 inch and negative 0.09 inch. Nova Scotia and the territory north of Saskatchewan showed a negative departure of 0·05 inch and in British Columbia it was very generally average or a little above. These departures gave an area of relatively low pressure over the Lake Region and Upper St. Lawrence Valley and also in Saskatchewan and relatively high pressure between Lake Superior and Manitoba, as well as in the Maritime Provinces.

HIGH AREAS.

The high areas in May were not a pronounced feature of the month and of the six charted four attained their maximum importance in Manitoba.

No. 1 appeared in Northern Manitoba on the 1st and developed in rear of low area No. 1, the combined system causing a northerly gale both on the Lakes and east; it dispersed over the Lake Region. No. 2 was first observed over the Pacific coast on the 4th, moved slowly across the Canadian North-west Territories and was north of Lake Superior on the 8th and then disappeared. No. 3 developed over the Maritime Provinces between 7th and 9th and passed slowly seaward. No. 4 appeared on the Pacific coast on the 9th and moved slowly across the continent losing its identity on the 17th. No. 5 was an extensive area which moved gradually southward from the Hudson's Bay and Labrador between the 18th and 20th; it did not however become very pronounced and passed from the American coast on the 21st. No. 6 appeared to the north of Saskatchewan on the 23rd and with increasing energy moved to Manitoba and southward. The highest pressure recorded during the month occurred in Manitoba as the centre of this latter area passed.

LOW AREAS.

Among the distinctive features of the month were the extremely slow and erratic movements of all low areas, and especially of those designated as Nos. 2 and 5 and also the abnormal movement of No. 4 which moved southward across the Lake Region to the Middle Atlantic Coast.

No. 1 appeared to the west of Lake Superior on the 1st and thence moved with increasing energy to the Maritime Provinces; it was accompanied by local thunderstorms in the Lake Region and St. Lawrence Valley and a general rainfall further east and as high No. 1 filled in rapidly behind it, there were moderate northerly gales in all districts. No. 2 was observed in the Western States on the 1st and moved so slowly and irregularly that it was not until the 9th that it gave unsettled and showery weather in the Lower Lake Region; it seems then to have broken up into several parts the best defined of which was near the Middle Atlantic Coast on the 10th, thence moving to the Ottawa Valley and eastward, the weather in Quebec and the Maritime Provinces becoming unsettled and showery. No. 3 developed on the Upper Lakes on the 12th and moved eastward to the Gulf of St. Lawrence during two days with thunderstorms occurring in its southern quadrants. The first appearance of No. 4 was also over the Upper Lakes early on the 17th; it moved to the Ottawa Valley and thence southward passing off the Middle Atlantic Coast and unsettled showery weather which began in Ontario at this time continued almost steadily until the end of the month and was to a great extent concurrent with the erratic movement of No. 5 which was centered in Texas on the 20th, moved northward to the western part of the Lake Region and then north-west to Minnesota; the track as shown on the chart for 21st to 24th is in the form of a loop and the centre passed east across Lake Erie on the 24th, thence to the Southern States and afterwards after the 26th northward up the Coast apparently dispersing near New England on the 29th, while however a portion of perhaps the same area hovered over the Lower Lake Region accompanied by cool showery weather.

BRIGHT SUNSHINE.

Bright sunshine was above average throughout the western half of the Dominion, Brandon, Manitoba recording the highest percentage, 69 or 22 per cent above average, which large difference diminished gradually until at Victoria, B.C. the per centage recorded was but 42 or 1 above average. Eastward from Manitoba the bright sunshine became rapidly less and throughout Ontario, Quebec and the Maritime Provinces per centages of the possible amount ranged from 44 at Montreal to 37 at Toronto and 35 at Frederickton, negative departures from average of respectively 7, 13 and 10 per cent.

TEMPERATURE.

The temperature was higher than normal by between 6° and 10° in Manitoba and the eastern portions of the North-west Territories; the positive departure diminishing both westward and eastward, 3° in excess in Alberta lessening to either just average, or 1° below on Vancouver Island. In New Ontario and Northern Quebec the positive departure from average was about 4°, which difference lessened southward, until in Southern Ontario, near Lake Erie, the mean was just equal to average, as was also the case in Southern Nova Scotia. In Manitoba unusually high temperature was maintained throughout the month, but in Ontario an unusually high temperature during the first half was succeeded by a fortnight of temperatures nearly as much below normal as before they had been above.

The Highest and Lowest temperatures in each Province during May, 1901, were :

British Columbia,	97°·0 on 25th at Spence's Bridge.	14°·2 on 10th at Stuart's Lake.
North-west Territories,	97°·0 on 27th at Muskowpetung.	14°·0 on 10th at Pincher Creek.
Manitoba,	101°·5 on 17th at Aweme.	20°·0 on 11th at Pipestone.
Ontario,	92°·0 on 5th at Sarnia.	21°·2 on 3rd at White River.
Quebec,	85°·7 on 23rd at Chicoutimi.	24°·0 on 3rd at St. Agathe des Monts.
New Brunswick,	90°·0 on 22nd at Chatham.	26°·0 on 1st at Moncton.
Nova Scotia,	80°·6 on 22nd at Truro.	21°·6 on 2nd at Truro.
Prince Edward Island.	76°·4 on 21st at Charlottetown.	28°·5 on 2nd at Hamilton.

PRECIPITATION.

The rainfall was very much in excess of average in Southern Alberta and in Western Assiniboia. It was also in excess, but to a lesser extent, in Ontario, except in the extreme western and eastern portions, where it was either average or a little below. Throughout Quebec departures in either direction were not very marked; in the Maritime Provinces there was a slight and general excess, and in Southern Manitoba and Eastern Assiniboia a fairly marked deficiency. In Ontario most of the rain fell after the 17th. Barkerville, Cariboo, reports: No snow remains on the flats, but four feet on the mountain trails, leaving slowly.

WINDS.

May was not a windy month in any part of the Dominion; the force of a gale was not reached at all between the Pacific and Lake Superior and on but very few days were moderate gales recorded in the Lake Region, Lower St. Lawrence Valley and Maritime Provinces. The heaviest blow reported occurred at Father Point on the 18th, when N.E. 48 miles an hour was registered.

In Vancouver Islands there was a predominance of south-westerly winds with a force of fresh to strong on seven days; on the Mainland the direction was more easterly.

In Southern Alberta and West Assiniboia there was a preponderance of southerly and westerly winds while in other parts of the Territories and eastward to Lake Superior there was a tendency for more easterly winds, and in the Lake Region and eastward in the St. Lawrence Valley and Gulf there was a decided predominance of easterly and northerly winds. The force of a gale was reached on the Lower Lakes on three occasions and fresh to strong winds recorded on ten; while in the Gulf a gale occurred on four days and fresh to strong winds on six. In the Maritime Provinces two very moderate gales occurred and there were several days with strong winds; the direction of these strong winds was easterly but the general direction of the month was exceedingly variable.

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MAY, 1901.

a Barometer not reduced to Sea Level * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	PRESSURE. Mean reduced.	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observt.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of Dewpoint.	Mean relative Humidity.	Mean amount of Cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	C.	Total number of hours.	VELOCITY OF WIND. Mean miles per hour.	Highest day's velocity.	Date and direction from.	PRECIPITATION. Amount.	Difference from Average.	Heaviest fall in month.	Days with .01 or more	No. of Fair days.	No. of Auroras.	No. of Thunder storms.	No. of Fogs.
BRITISH COLUMBIA:	° ′	° ′		in.	in.	in.		°	°		°		°		°	°																in.	in.	in.					
Victoria	48 24	123 19	85	30 01	30 44	29 76	0·68	52·6	0·0	10	76	25	37	6	12·6				7	8	63	61	36	49	88	190	179	32	46	744	7·4	17 5	29 SW	0·98	−0·50	0·32	13	14	0	0	0
Barkerville	53 2	121 35	4180	29·87	30·36	29 48	0·88	44 6	−0 6	13	78	26	16	9	25·9				7	7	0	0	0	2	12	6	0	0	42	62				3·17	+0·65	1·00	14	16	0	1	0
Agassiz	49 14	121 31	52					56 3	+ 2·2	11	90	26	38	0	13 24·1				3	1	15	0	0	0	24	0	0	0	93				4·80	−0·15	1·11	13	18	0	0	0
Port Simpson	54 34	130 26	26	29·90	30·29	29	0·88	48 0	−0·5	13	65	0	18	33	9	2 16·8	43·4	83	8	10	2	0	1	2	9	10	16	0	53	93	I	IV	27 W	7·42	−	0·81	18	13	0	0	18
Spence's Bridge	50 28	120 20	770					60 0	− 0·6	10	97	0	25	35	5	9·2	9																0·02	−1 12	0·02		1	29	0	0	0
Hazelmere	49 3	122 43						55 2	−	8	82	0	26	31	0	6 19·9					2	18	0	12	1	25	1	2	0	62				3·47	−	·83	16	15	0	0	0
Revelstoke	51 0	118 6	1476																																					
Kamloops	50 41	120 29	1193	29·89	30·32	29·57	0·75	60·3	−	8	92	5	26	31	0	10 26·9				5	7	0	1	13	4	11	0	4	2	27				1·60	−1 24	0·40	0	31	0	0	0
Princeton	49 29	120 29	1650					53 3	−	4	94	0	25	25	0	10 33·7																			1·03	−	0·37		5	26	0	1	0
Pilot Bay	49 36	116 55						55 2	−	6	79	0	26	35	0	10 22·3																			5·17	−	1·67	15	13	0	0	0
Rivers Inlet	51 30	127 19	20	29·98	30·47	29	0·89	48 4	−	8	71	5	25	32	2	5 16·7	44	86	6	8	0	0	1	7	0	3	18	0	64	93	I	III	3 W	7·42	−	0·81	18	13	0	0	0
Stuart's Lake	54 38	124 12	1800					40 0	−	8	66	0	1	14	2	10 27·1																			1·35	−	0·30	6	25	0	0	0
French Creek	49 20	124 36						50 7	−	8	81	1	25	28	0	8 20·2																			2·16	−	0·52	11	20	0	0	0
Duncan	48 45	123 30						52 9	− 0·5	11	84	0	26	27	0	6 23·8																			1·94	−	0·75	7	23	0	0	0
Coldstream	50 14	119 15	1246					55 3	−	5	90	0	26	29	0	9 23·8																			0·55	−	0·23	5	24	0	0	0
Nanaimo	49 10	123 53						52 7	−	1	84	9	25	38	8	10 19·5	45	5	69	6	1	9	8	6	27	0	10	8	15	16	93	III	VI	24 SW	1·62	−	0·84	12	19	0	1	0
Chilliwack	49 10	121 57		29·99	30·40	29	0·63	55 8	−	5	87	0	26	35	0	6 20·0	49	1	79	5	2	0	3	24	6	14	24	21	1	0	93	13·9	22·0	28 SW	5·18	−	1·42	15	14	0	0	0
Port Babs	49 0	123 3																																						
Midway	49 0	118 46	1800					55 6	−	5	91	0	26	32	0	9 31·1																			2·71	−	1·15	10	21	0	0	0
Enderby	50 32	119 7	1180					54 0	−	5	90	0	27	27	0	30 28·8																			0·81	−	0·34	3	28	0	0	0
Nicola Lake	50 9	120 39	2120					52 2	−	6	82	0	27	27	0	10 24·4																			0·65	−0·51	0·53	4	26	0	0	0
West Kootonay	49 20	117 50						56 0	−	6	76	0	15	28	0	10 21·5																			3·20	−	0·98	9	22	0	0	0
Garry Point	49 21	123 17						52 7	−	1	67	1	5	25	33	0	6 15·5					2	10	18	11	14	5	9	22	2	93	8·8	17·3	9 NW	3·50	−	1·14	11	20	0	0	0
Tobacco Plains	49 1	115 5	2300					55 7	−	1	87	8	4	26	0	10 25·5																			2·13	−	0·51	11	20	0	4	0
Vancouver	49 18	123 4	195					51 9	−	3	79	0	28	33	5	7 18·4																			4·38	−	1·42	17	14	0	0	0
New Westminster	49 13	122 54	350	30·02	30·30	29	0·53	53 4	−	8	79	0	26	34	0	19 19·0						0	1	20	0	11	12	1	1	16	62		VI	38 W	3·79	−	1·00	14	17	0	0	1
*a*Ladner	49 5	123 4		30·03	30 44	29	0·68	51 1	−	4	75	0	24	31	0	6 17·2																			2·55	−	0·80	9	22	0	0	0
N. Nicomen	49 12	122 2	59					54 9	−	9	84	0	26	34	0	6 20·2																			4·87	−	1·53	13	16	0	0	0
Quesnelle	52 59	122 30	1700					54 2	−	8	89	0	25	33	0	9 33·4																			0·68	−	0·24	4	27	0	0	0
Clayoquot	49 11	125 55	40					50 0	−	2	74	0	26	31	0	9 17·6																			17·65	−	6·54	19	1	0	0	0
Cape Scott	50 48	128 27																																						
Massett	53 58	132 9	10					46 9	−	4	63	0	26	34	0	9 19·4					8	15	0	15	0	2	14	0	6	62				3·65	−	0·50	11	20	0	0	0
Quesnelle Forks	52 45	121 55						50 4	−	2	86	0	25	26	0	9 25·9																			1·44	−	0·42	12	19	0	1	0
Bella Coola	52 20	126 54	15					53 6	−	3	81	5	25	28	0	6 26·2																			2·43	−	·53	8	23	0	0	0
Cranbrook	49 30	115 50	40					51 7	−	1	74	0	17	22	0	10 27·2																										
Nelson	49 29	117 21						56 0	−	8	84	0	27	31	0	10 24·6																			2·70	−	0·56	12	19	0	2	0
Okanagan Mission	49 52	119 29						55 1	−	3	88	0	27	26	5	10 29·2																			0·58	−	0·17	7	24	0	0	0
Matsqui	49 7	122 18						54 3	− 0·3	12	81	5	26	32	0	5 20·0																			5·74	−	1·50	13	18	0	0	0
Rossland	49 6	117 40	3400																																					
Alberni	49 30	124 50	300					52 3	−	7	88	2	25	28	7	9 24·2																			6·06	−	2·31	16	14	0	0	0
Saturna Island	48 47	123 12	14					51 4	−	1	67	0	24	37	0	5 14·4																			2·08	−	0·37	16	15	0	0	1
N.-W. TERRITORIES:																																								
Medicine Hat	50 1	110 37	2161	29·86	30·43	29	0·50	58·7	−	4	100	17	16	27	7	14 26·2					7	8	5	2	5	4	15	7	12	5	7	62				6·29	4·98	1·58	10	17	0	9	0
Edmonton	53 33	113 30	2158	29·84	30·31	29	0·92	51·8	−	3	88	4	27	30	0	10 23·8					6	5	10	1	1	13	0	2	0	14	6	20	62		12·7	8 W	2·02	−0·47	0·42	9	16	0	0	1
Swift Current	50 20	107 45	2439	29·87	30·53	29	0·42	59·7	−	8	95	1	25	33	0	11 26·2					4	0	31	78	24	158	78	57	149	139	29	744	11·4	26·0	10 NW	1·99	−0·23	0·53	14	17	0	7	2
Qu'Appelle	50 30	103 47	2115	29·87	30·57	29	0·42	59·3	−	9	0	18	87	8	27	25·5	6	28	3		4	1	3	2	11	12	18	0	1	13	2	62		23·8	11 NW	0·81	−0·84	0·22	6	25	0	1	1
Calgary	51 2	114 2	3389	29·87	30·42	29	0·36	52·5	−	3	0	17	85	0	26	24·0	10	28	6		6	7	3	7	4	11	0	1	26	8	2	62		21·0	7 W	1·91	−0·14	0·44	9	20	0	0	0
Prince Albert	53 16	106 0	1402	29·84	30·51	29	0·39	51·7	−	9	1	16	88	5	17	27·5	11	28	6		5	3	4	3	7	7	1	2	2	6	30	62		14·0	4 NE	1·49	−0·23	0·90	6	25	0	2	0
Battleford	52 41	108 20	1620	29·88	30·51	29	0·45	51·6	−	6	4	10	88	0	27	26·0	11	26	2		6	7	9	63	35	246	35	37	95	184	40	741	9·4	24·7	22 SE	2·42	−0·82	0·92	10	17	0	5	0
Oonikup	53 30	101 20																																						
*a*Banff	51 10	115 35	4542	29·93	30·39	29	0·48	47·5	−	6	79	4	27	21	3	10 25·9				5	3	4	8	1	3	6	10	9	1	20	62		VII	31 SW	2·39	−	0·35	17	14	0	0	0
Calgary (2)	51 4	114 4																																						
Chaplin	50 27	106 40	2202					61·7	−	7	9	16	92	0	19	30·0		3	32	0															0·16	−0·24	0·10		3	28	0	0	0
Moose Jaw	50 21	105 35	1745					57·1	−	7	92	0	19	24	0	11 31·4																			1·78	−	1·06	5	26	1	2	0
Regina	50 27	104 37	1885					58 8	−	8	5	17	92	0	20	26·0		12	30	3															0·65	−0·05	0·50		4	24	0	4	0
Indian Head	50 28	103 40	1924					59 7	+ 7·2	12	94	0	19	24	0	12 31·0																			0·87	−	0·67		2	29	0	0	0

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PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, MAY, 1901

a. Barometer not reduced to Sea Level * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	Pressure. Mean reduced	Pressure. Highest.	Pressure. Lowest.	Pressure. Range.	Temperature. Mean	Temperature. Difference from average.	Temperature. Years observt.	Temperature. Highest.	Temperature. Date.	Temperature. Lowest.	Temperature. Date.	Temperature. Mean daily range.	Mean temperature of Dewpoint.	Mean relative Humidity.	Mean amount of Cloud.	No. of day completely clouded.	Direction of Wind from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of hours	Velocity of Wind. Mean miles per hour.	Highest day's velocity.	Date and direction from	Precipitation. Amount.	Difference from Average.	Heaviest fall in month.	Days with .01 or more	No. of Fair days	No. of Auroras.	No. of Thund. storms.	No. of Fogs.
	° ′	° ′		in.	in.	in.	in.	°	°		°		°																				in.	in	in.					
ONTARIO—(*Continued.*)																																							
*Otonabee	44 20	78 18						54 9	—		77 0	5	37 0	15	—					16	6	16	22	3	17	10	13	0	93				4 43	+1 58	0 85	10	21	0	3	0
Windsor	42 20	83 4						57 0	— 1	2	25 81	0	35 0	4	1 0	2																	3 03	− 0 23	0 88	14	14	0	0	0
Alton	43 51	80 5	1100																																				
*Guelph	43 33	80 16						54 3	+ 1	3	14 75	0	32 0	15	17 6					1	4	9	1	0	2	6	8	0	31				3 26	+1 19	0 60	15	16	0	3	6
*North Bruce	44 23	81 25						55 0	+ 1	1	13 80	0	36 0	3	—					2	13	21	10	0	18	25	4	0	93				2 50	−0 12	1 01	11	20	0	0	4
Collingwood	44 30	80 15						63 0	— 0	2	10 74	0	33 0	15	16 4																	3 14	+0 62	1 05	15	16	0	0	0
Collingwood (2)	44 29	80 15						49 8	—		6 73	0	30 0	2	16 6																	4 25	—	1 25	10	21	0	1	7
Icncklyn	43 28	80 36	1339					52 1	—		1 73	0	34 5	15	18 9																	3 46	—	1 25	12	18	0	2	3
Whiteside	43 6	79 30						55 9	+ 3	6	16 80	0	7	31 0	14 22	9																	3 94	−1 67	0 93	14	15	0	2	0
Sprucedale	45 30	79 40																																					
Orillia	44 34	79 24						54 0	+ 0	6	9 77	0	7	27 0	14 20	8																	3 22	+0 12	0 50	10	21	0	2	0
Coldwater	44 38	79 40						53 5	+ 0	2	15 75	7	5	26 6	15 20	6				2	0	0	31	1	2	1	21	4	62				3 65	+0 65	1 03	12	19	0	2	0
Beatrice	45 8	79 20						53 1	+ 1	6	25 79	0	7	27 5	15 22	1				6	6	8	3	12	10	6	4	1	13	36	93	I	IV	3 N	4 76	−1 46	0 75	15	16	0	1	0
Gravenhurst	44 55	79 20	770					54 3	+ 1	6	29 82	0	8	28 0	15 22	3				10	6	14	13	3	4	9	10	24	93	II	IV	3 N	4 28	−1 38	0 87	13	16	1	1	0
Haliburton	45 1	78 28						53 7	+ 1	2	12 82	0	8	29 0	15 23	2																	5 58	+2 64	0 94	16	15	0	1	0
*Point Clark	43 51	81 45	595					51 4	— 0	1	78 80	0	7	33 0	3	—			3	0	32	3	12	7	23	9	5	1	1	93	II	V	12 SW	2 26	−0 35	0 80	4	27	0	3	3
Birnam	43 2	81 55						54 9	+ 0	1	18 78	6	6	30 0	4	18 9				18	6	6	0	6	9	2	11	4	62				2 73	−0 53	0 57	11	16	0	3	1
London	42 59	81 12	808	29 87	30 27	29 56	0 71	55 5	− 0	9	18 79	0	6	30 0	15 21	7	48 2	74	4	0	5	26	12	0	0	3	38	9	0	93	I	II	19 W	2 19	+0 09	0 44	14	16	0	7	0
Port Stanley	42 40	81 13	542	29 88	30 27	29 54	0 73	53 4	− 0	2	27 72	1	5	31 0	15 18	6				6	7	97	129	220	15	116	30	94	38	5	744	9 3	20 0	12 SW	2 46	−0 72	0 50	19	12	0	3	5
Woodstock	43 8	80 47	980	29 87	30 28	29 54	0 74	54 1	− 0	2	26 78	0	23	31 0	15 18	9	50 6	88	4	2	33	12	36	15	38	6	9	3	451	744	2 2	9 5	11 W	3 16	−0 66	0 98	13	18	0	0	0
Port Dover	42 47	80 13	635					49 3	—		21 69	7	1	28 0	16 21	5																	2 94	−0 11	1 18	12	19	0	0	0
Pelee Island	41 59	82 38						54 1	+ 2	2	19 67	0	11	34 5	15 17	6																	3 42	−0 48	0 91	8	23	0	0	9
St. George	43 15	80 19	722					56 2	+ 1	1	17 78	0	6	33 0	15 19	7				6	15	1	15	8	2	1	7	57	2	0	93				3 43	+0 18	0 70	17	14	0	1	0
Paris	43 12	80 25	840					55 4	+ 0	3	11 78	0	5	24 0	15 22	5																	4 45	+1 20	0 80	17	14	0	1	0
St. Mary's	43 15	81 11	1040																																				
*Bisecutasing	47 3	82 8																																					
White River	48 35	85 16	1252	30 01	30 63	29 60	1 03	50 7	+ 4	4	12 83	0	5	21 2	3 30	6				5	2	46	251	42	31	24	35	74	43	198	744	4 4	11 0	24 NE	2 26	+0 31	0 54	8	21	0	2	0
Port Arthur	48 27	89 12	644	29 97	30 60	29 51	1 09	49 2	+ 2	9	21 77	0	26	29 0	14 21	1				4	5	110	108	166	129	14	23	95	68	31	744	5 3	16 8	7 W	0 95	−1	0 59	4	25	0	1	0
Bloomer'd	43 33	79 45	292					52 7	— 2	2	19 67	0	5	35 0	15 17	9				6	9	4	9	37	1	6	17	6	2	11	93	III	VII	23 E	3 79	+0 29	0 74	19	12	0	4	11
Agincourt	43 47	79 16						54 1	—		6 77	0	6	31 0	15 17	2																	3 84	—	1 44	13	18	0	5	4
Pickering	43 39	79 4																																					
Hamilton	43 16	79 54	303					55 7	+ 0	3	25 79	5	5	37 2	14 15	4						6	17	12	0	1	9	13	4	0	62				4 77	+2 59	0 98	17	11	0	4	12
Port Hope	43 56	78 20						55 0	—		5 81	0	7	33 0	14 20	5																	3 82	+1 70	1 18	12	19	0	0	6
Kinmount	44 42	78 42						54 3	—		4 82	0	7	25 0	15 22	9																	4 37	—	0 89	12	19	0	2	0
Cockburn Island	45 57	83 18	610					51 3	—	1	4 76	0	6	30 0	26 21	7						11	8	5	6	2	3	6	10	11	62				2 13	—	0 60	10	21	0	0	4
Chatham	42 23	82 12																																					
Dalhousie Mills	45 20	74 29						56 4	—		3 77	0	17	39 0	2 16	8																	2 63	—	0 78	9	22	0	0	0
Meaford	44 37	80 37						49 9	—		3 73	0	22	34 0	15 18	6						12	2	4	7	2	12	9	2	12	62				3 44	—	1 40	0	21	0	2	4
Ruthven	42 3	82 41																																					
Listowel	43 44	80 58						51 5	—		78 0	7	3	30 0	28 23	6																	2 78	—	1 02	5	26	0	0	0
Bruce Mines	46 18	83 55						53 0	—		3 74	0	4	29 0	15 22	2																	1 56	—	0 59	13	18	0	3	1
Rat Portage	49 48	94 32	1087					56 6	—		82 2	22	22	31 7	22	8																	1 47	—	0 46	7	24	0	0	1
Dunnville	42 54	79 39						54 7	—	1	2 75	0	7	31 8	3 17	6						2	8	7	1	1	8	2	2	0	31				4 47	—	0 67	18	13	0	6	0
*Heron Bay	48 40	87 10						50 3	+ 0	1	10 78	0	30	35 0	4	—						33	1	0	0	2	1	40	0	16	93				1 72	—	1 15	5	26	0	0	0
Sturgeon Falls	46 16	79 54						54 0	—		2 80	5	7	30 0	15 22	6	45 3	65				3	16	9	1	11	15	5	5	6	71				1 70	—	0 90	6	24	0	2	0
QUEBEC:—																																							
Montreal	45 30	73 35	187	29 86	30 24	29 40	0 84	56 2	+ 1	4	27 79	4	22	40 1	3 14	8				14	45	135	134	112	108	91	62	43	741	9 7	20 0	W	2 50	−0 45	0 36	17	12	0	0	1
Richmond	45 40	72 8	435					54 1	+ 0	7	24 85	0	23	29 5	6 22	0																	3 16	−0 19	0 82	16	15	0	0	0
Brome	45 10	72 36						53 2	− 0	1	21 83	0	2	29 0	6 18	5				5	10	9	4	21	4	18	14	19	4	0	93				2 19	−0 76	0 33	14	17	0	1	0
Quebec	46 48	71 13	296	29 89	30 26	29 36	0 90	53 1	+ 2	9	27 81	5	22	35 2	15 18	8				7	10	24	38	42	2	23	130	92	40	3	744	15 5	35 7	28 NE	3 73	+0 65	0 4	14	16	0	0	1
Chicoutimi	48 25	71 5	150					52 1	+ 2	6	22 85	7	23	32 4	1 25	2				6	4	0	3	0	14	0	17	0	15	8	90	II	VIII	11 SE	2 60	+0 27	0 58	10	21	0	0	0
Father Point	48 31	68 19	20	29 89	30 27	29 30	0 97	46 2	+ 2	5	24 65	7	9	29 0	25 17	2				7	11	54	166	145	37	31	141	118	25	27	744	16 6	44 0	23 NE	2 39	−0 19	0 42	13	15	0	0	0
Cape Chatte	49 6	66 45						47 3	+ 3	5	18 63	0	21	34 0	4	—						8	7	17	0	2	8	19	0	37	93				3 10	+1 33	1 50	4	27	0	0	0
Bicquette	48 25	68 53						45 1	+ 2	4	18 61	0	16	39 0	3	—						7	44	0	0	1	24	5	4	8	93				1 70	−0 59	0 70	4	27	0	0	3
*Cape Magdalen	49 16	65 29						47 4	+ 3	6	18 67	0	21	31 0	4	—						2	6	7	10	29	2	3	28	15	93				1 55	−1 20	0 50	11	20	0	0	2
Anticosti, W.Pt	49 52	64 32						45 8	+ 4	3	18 62	0	24	34 0	4	—						9	9	12	12	20	4	19	8	0	93				3 51	+0 65	1 01	13	18	0	0	2

| | | |

PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER &c., DURING MAY, 1901.

STATIONS.	Rainfall. Amount in inches.	No. of Days '01 or Over.	No. of Fair Days.	Heaviest Fall in Month.	Date.	Remarks.
	in.			in.		
British Columbia—						
Caulfields	3·32	11	16	0·96	16	
Goldstream Lake	3·37	16	15	0·86	31	
Kuper Island	2·67	12	19	1·26	15	Hail on 8th. Frost 5th, 6th, 8th and 9th.
Vancouver	4·48	18	13	1·02	31	Thunder on 12th.
Royal Oak	1·46	11	20	0·40	31	
Nanaimo	1·81	6	25	1·20	15 16	
Naas Harbour	3·14	15	16	1·45	28	Sleet on 1st and 28th.
Port Essington	4·13	21	10	0·60	16	
N. W. Territories—						
Broomhill	1·69	8	23	0·50	19	
Saltcoats	0·65	2	27	0·40	20	Snowflurries on 10th.
Weyburn	0·53	4	26	0·26	9	Thunder on 14th.
Stirling	1·85	7	23	1·26	22	2 in. snow on 4th.
Didsbury	1·51	7	23	0·54	19	Snow on 8th, terrible storm from N. on 9th.
Beaver Hills	1·94	8	23	0·27	7	Thunder on 5th, 7th and 12th. Cold and windy.
Innisfail	1·49	9	20	0·51	19	Growth of vegetation marvellously rapid.
Regina	0·49	5	26	0·30	21	Snow on 10th.
Dirt Hills	1·19	5	26	0·50	20	Snow on 10th; thunder 3rd, 12th, 19th and 20th.
Counts	4·38	13	18	1·54	23	Snow on 9th; thunder on 18th.
Western Beaver Hills	1·59	9	22	0·50	22	Thunder on 14th and 23rd.
Manitoba—						
Clearspring	0·50	1	29	0·50	22	Snow on 11th; gale of wind.
Norquay	0·95	5	26	0·59	10	Thunder and hail on 10th; snow on 11th and 12th.
Morden	0·15	1	25	0·15	9	Snow on 11th.
Portage la Prairie	0·12	1	30	0·12	10	
Cartwright	0·26	3	28	0·15	9	Snow on 10th; frost 7th, 8th, 12th, 13th, 24th and 25th.
Belmont	0·98	4	26	0·65	4	Thunder on 4th, 15th and 16th.
Oak Lake	0·00	0	0	0	0	Terrible high wind 10th and 11th; needing rain badly.
Beaver Creek	0·17	1	30	0·17	9	
Oakbank	0·37	3	22	0·33	13	Thunder 1st; sleet and hail 10th.
Turtle Mountain	0·47	6	25	0·20	9	Sleet on 10th.
Ontario—						
Ennismore	5·20	8	23	1·00	30	
Elgin	4·26	9	22	1·37	31	Thunder on 2nd.
Deer Park	3·61	16	15	0·98	31	
Nottawasaga	3·70	10	21	0·10	23	Thunder and hail on 1st and 11th.
Sunshine	2·49	13	18	0·44	2	Thunder on 13th, 24th and 25th.
Westminster	2·67	15	16	0·61	21	Thunder on 1st, 2nd and 23rd.
Orangeville	5·42	17	14	1·28	24	
Oliver's Ferry	2·89	12	19	0·72	29	
Scarboro'	3·43	17	14	0·80	31	Thunder on 8th, 12th, 24th and 29th.
Watford	2·56	12	19	0·60	23	
Dealtown	2·66	12	19	0·67	21	Hail on 2nd.
Midland	3·91	11	20	1·10	24	Thunder on 1st and 11th.
Uxbridge	5·36	16	15	1·03	11	Thunder on 12th.
Westport	5·71	17	14	1·48	29	
Goderich	2·70	7	24	0·70	13	
North Williamsburg	4·23	13	18	0·68	19	Thunder on 2nd and 15th.
Emsdale	4·38	16	15	1·35	31	Thunder on 2nd, 9th and 17th.
Aurora	4·79	12	19	1·29	24	Thunder on 2nd and 11th.
Croydon	4.20	9	22	0·95	18	
Cayuga	2·96	8	18	0·67	23	N.E. wind all through month.
Parma	2·93	14	17	0·40	12	
Kitley	4·95	12	19	1·12	12	
Ursa	5·58	17	14	1·03	31	Thunder on 11th; frost 12th, 15th and 16th.
Lynedoch	1·72	7	23	0·65	30	
Port Burwell	1·10	8	23	0·31	22	Thunder on 2nd; severe storm 8th.
Montague	4·26	7	24	1·42	18	
Jermyn	4·33	7	24	0·98	22	15th, heavy frost.
Princeton	3·94	15	16	0·80	30	Thunder on 12th.
Lion's Head	3·67	11	20	1·70	23	Thunder on 8th, 10th and 23rd.
Dutton	2·23	6	24	0·75	21	Thunder on 22nd; frost 12th, 13th, 14th and 15th.
Huntsville	4·02	11	20	1·65	24	
Wiarton	4·05	12	19	1·01	24	Thunder on 1st and 10th.
Wooler	3·91	15	14	1·01	22	Frost on 15th and 16th.
Wyoming	2·60	10	21	0·60	24	Thunder on 10th, 18th, 23rd and 31st.
Arden	5·81	18	13	1·15	30	Thunder on 3rd and 11th.
Lansdowne	3·92	13	18	1·04	17	
Georgetown	3·84	14	14	1·00	31	Thunder 2nd, 8th, 12th, 17th, 24th; fog 1st, 9th, 10th, 19th, 21st, 22nd, 24th, 29th, 30th, 31st.
Providence Bay	1·94	10	21	0·90	24	Thunder on 1st.
New Brunswick—						
Point Escuminac	0·29	4	27	0·13	7	
Nova Scotia—						
Port Morien	4·79	6	25	1·74	3	

PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY DURING WHICH THE SUN WAS ABOVE THE HORIZON IN THE MONTH OF MAY, 1901.

	HOURS ENDING															
	5 A.M.	6 A.M.	7 A.M.	8 A.M.	9 A.M.	10 A.M.	11 A.M.	NOON.	1 P.M.	2 P.M.	3 P.M.	4 P.M.	5 P.M.	6 P.M.	7 P.M.	8 P.M.
Victoria	0·00	0·09	0·27	0·37	0·49	0·52	0·57	0·54	0·54	0·59	0·61	0·62	0·53	0·45	0·23	0·00
Nanaimo	0·02	0·26	0·44	0·45	0·49	0·55	0·53	0·45	0·48	0·53	0·56	0·49	0·44	0·41	0·38	0·09
Agassiz	0·00	S	0·11	0·29	0·41	0·41	0·53	0·52	0·54	0·49	0·49	0·51	0·52	0·38	0·20	0·00
Battleford	0·26	0·41	0·54	0·62	0·65	0·67	0·72	0·75	0·75	0·73	0·67	0·65	0·54	0·49	0·27	0·02
Indian Head	0·00	0·01	0·30	0·69	0·77	0·76	0·77	0·79	0·81	0·81	0·82	0·76	0·78	0·77	0·49	0·11
Brandon	0·38	0·63	0·75	0·78	0·79	0·81	0·84	0·83	0·79	0·85	0·84	0·85	0·85	0·64	0·03	0·00
Winnipeg	S	0·64	0·75	0·73	0·72	0·76	0·65	0·70	0·73	0·73	0·73	0·72	0·70	0·71	0·53	S
Durham	0·03	0·25	0·36	0·36	0·40	0·42	0·47	0·57	0·55	0·56	0·54	0·50	0·42	0·31	0·07	
Woodstock	0·08	0·32	0·44	0·48	0·44	0·45	0·43	0·42	0·41	0·47	0·50	0·43	0·45	0·16	0·01	
Toronto	0·04	0·26	0·38	0·43	0·50	0·49	0·49	0·47	0·50	0·46	0·45	0·41	0·40	0·26	0·09	
Lindsay	S	0·11	0·22	0·34	0·39	0·49	0·48	0·56	0·52	0·48	0·49	0·53	0·46	0·34	0·27	0·05
Barrie	0·07	0·25	0·32	0·40	0·57	0·61	0·59	0·56	0·55	0·52	0·53	0·49	0·44	0·01	0·00	
Kingston	0·09	0·34	0·42	0·44	0·41	0·47	0·47	0·51	0·60	0·57	0·56	0·43	0·40	0·19	S	
Ottawa	0·20	0·40	0·47	0·48	0·54	0·59	0·56	0·54	0·52	0·52	0·56	0·47	0·44	0·16	S	
Montreal	0·13	0·29	0·33	0·41	0·47	0·48	0·49	0·53	0·48	0·46	0·54	0·56	0·46	0·09	0·00	
Fredericton	0·09	0·27	0·36	0·40	0·45	0·48	0·50	0·52	0·44	0·38	0·36	0·42	0·38	0·20	0·00	0·00

	Victoria.	Nanaimo.	Agassiz.	Battleford.	Indian Head.	Brandon.	Winnipeg.	Durham.	Woodstock.	Toronto.	Lindsay.	Barrie.	Kingston.	Ottawa.	Montreal.	Fredericton.
Mean Proportion for Month (*Constant sunshine being* 1.)	0·42	0·43	0·35	0·57	0·61	0·69	0·64	0·39	0·37	0·37	0·38	0·40	0·39	0·43	0·44	0·35
Difference from Average	+0·01	—	+0·04	+0·08	+0·15	+0·22	+0·10	—	−0·17	−0·13	−0·09	−0·04	−0·08	—	−0·07	−0·10
Maximum Daily Amount	0·84	0·94	0·81	0·99	0·84	0·92	0·92	0·90	0·87	0·90	0·96	0·87	0·90	0·91	1·00	0·90
Date	25	25	24	26	27	4	24	4	15	6	25	15	5	5	16	21
No. of Days Completely Clouded	2	3	7	4	3	2	2	8	5	6	6	5	2	6	6	9

First appearance of Spring Birds:—

Swallows.—N. Nicomen, 10th; Clontarf, 1st; Erasmus, 2nd; Stouffville, 3rd; Birnam, 7th; St. Stephen, 10th; Red Deer, 7th; Ursa, 16th.

Humming Bird.—N. Nicomen, 11th.

Whip-poor-Will.—Clontarf, 6th; Bloomfield, 5th.

Catbird.—Bloomfield, 21st.

Orioles.—Lucknow, 13th; Owen Sound, 6th; Lakefield, 20th.

Kingfisher.—Lakefield, 12th.

Bobolink.—St. Stephen, 24th.

Wrens.—Norquay, 4th.

Thunder recorded on—

1. Wiarton, Battleford, Minnedosa, Port Arthur, Guelph, London (hail), Stony Mountain, Athabasca Landing, Rat Portage, Point Clark, Birnam, Beatrice, Brantford, Sarnia, Stouffville, Red Deer, Westminster, Midland.

2. Guelph, Durham, Stratford, Gravenhurst, Sturgeon Falls, Lindsay, Clontarf, Haliburton, Owen Sound, Lucknow, Dunnville, Bruce Mines, Meaford, Rocklyn, Agincourt, Hamilton, Stony Creek, Kinmount, Otonabee, Brantford, Erasmus, Bloomfield, Georgetown, Arden, Elgin, Westport, N. Williamsburg, Emsdale, Aurora, Kitley, Port Burwell, Swift Current, Parry Sound, White River, Port Stanley, Toronto, Uplands, Haileybury.

3. Red Deer, Moose Jaw, Dirt Hills, Battleford, Qu'Appelle, Regina.

4. Aweme, Belmont.

5. Red Deer, Beaver Hills.

6. Red Deer, Swift Current.

7. Knee Hill, Didsbury, Battleford, Swift Current, Medicine Hat, Bermuda.

8. London, Lakefield, Brome, Dunnville, Welland, Stouffville, Erasmus, Treherne, Georgetown, Scarboro, Lion's Head, Wiarton, Battleford, Port Stanley, Toronto.

9. Nanaimo, Lakefield, Aweme, Portage la Prairie, Tobacco Plains (hail), Emsdale, Medicine Hat, Haileybury.

10. Stony Mountain, Clontarf, Lucknow, Sarnia, Norquay (hail), Wyoming, Lion's Head.

11. Aurora, Ursa, Jermyn, Bissett, Coldwater, Lindsay, Clontarf, Lakefield, Owen Sound, Dunnville, Agincourt, Arden, Hamilton, Stony Creek, Kinmount, Otonabee, Peterboro, Welland, Stouffville, Midland, Haileybury.

12. Guelph, Durham, Stratford (hail), Truro, Lindsay, Clontarf, Haliburton (hail storm), Summerside, Hamilton, P.E.I., Pictou, Bala, Owen Sound, Lucknow, Dunnville, Meaford, Rocklyn, Agincourt (hail), Otonabee, Brantford, Peterboro, Welland, Erasmus, Georgetown, Vancouver, Scarboro, Princeton, Halifax, Toronto, St. John, Sable Island, E. P.

13. Truro, Stouffville, Red Deer, Sunshine, Charlottetown, Halifax.

14. Manor, Weyburn.

15. Aweme, N. Williamsburg.

16. Bullion, Barkerville, Uplands.

17. London, Bala, Birnam, Agincourt, Stony Creek, Collingwood, Georgetown, Uxbridge, Emsdale, Bissett, Regina, Toronto.

18. Deseronto, London, Red Deer, Coutts, Medicine Hat, Kingston.

19. London, Crane Lake, Tobacco Plains, Dirt Hills, Prince Albert, Swift Current, Medicine Hat, Regina.

20. Bowsman, Muskowpetung, Gatesgarth, Crescent Lake, Moose Jaw, Dirt Hills, Regina.

21. Point Clark, Treherne, Crane Lake, Medicine Hat.

22. London, Stony Mountain, Crane Lake, Gatesgarth, Dutton, Medicine Hat.

23. Durham, Stratford, Lucknow, Dunnville, Birnam, St. George (heavy), Ridgetown, Erasmus, Bloomfield, Wyoming, Beaver Hills, Westminster, Lion's Head, Swift Current.

24. Deseronto, London, Coldwater, Dunnville, Point Clark, Agincourt, Hamilton, Paris, Welland, Collingwood, Bloomfield, Georgetown, Sunshine, Scarboro, Port Stanley, Toronto.

25. Sunshine.

27. Princeton, B. C., Tobacco Plains.

28. Athabasca Landing, Nelson, Knee Hill, Red Deer, Macleod, Medicine Hat, Bermuda.

29. Otonabee, Nelson, Crane Lake, Tobacco Plains, Scarboro, Swift Current, Medicine Hat.

30. Sturgeon Falls, Bruce Mines, Crane Lake, Battleford, Medicine Hat.

31. Pansboro, Bruce Mines, Sarnia, Collingwood, Wyoming, Prince Albert, Swift Current, White River, Toronto, Sable Island, E. P.

Aurora recorded:—

Where the class of aurora is noted by the observer, it is given (I) being the brightest, (IV) the feeblest in brilliancy.

10. Athabasca Landing, Moose Jaw.

11. Manor, Haileybury, III.

13. Gravenhurst, IV.

18. Bowsman, IV.

NOTES.

By F. F. Payne.

OUR FARTHEST NORTH STATION.

The most northern meteorological station in Canada is Herschell Island, Lat. 67° 0′ N. Long. 134° 4′ W. and as will be seen by referring to any map the position given is well within the Arctic Circle, a few miles north-west of the MacKenzie River. This station, which is of the second class, was established in December 1896, with the Rev. J. O. Stringer, a missionary, in charge. It is situated upon a small spit of sand in a well sheltered bay of the Arctic Ocean. The surrounding country is treeless and barren, save a few hardy plants, the life of which like the summer season is exceedingly short. Owing to the observers absence when visiting other portions of his mission, there are unfortunately breaks in the series of observations, nevertheless enough data has been collected to allow a fair estimate of at least a portion of the climatic conditions prevailing. It is however to be regretted that owing probably to over conscientiousness upon the part of the observer the snow which is generally much drifted has not been estimated, and owing to the loss of the rain gauge rainfall data has not been collected The mean summer temperature (June, July and August) is approximately 43°.3 and the mean winter temperature (December, January and February) —18°.2. The means for the intervening Spring and Autumn periods are respectively 4°.1 and 14°.2. The mean maximum and minimum temperatures for each month are approximately January —17°.1, —28°.2; February —12°.2, —24°.6; March —0°.1, —15°.2; April 4°.7,—7°.7; May 28°.1, 15°.5; June 47°.1, 33°.4; July 54 .8, 38 .5; August 48 .0, 38°.1; September 34°.4, 26°.4; October 22°.9, 9°.7; November 1°.5, —9°.7; December —7°.4, —19°.8. The mean daily range of temperature is generally much less than at stations in lower latitudes. The lowest temperature so far reported was —49°.4 on January 19th, 1900. This low temperature however would appear to be quite exceptional, although it is not so low as are frequently recorded at stations much further south. The highest temperature recorded was 67°.8 on July 13th, 1898. Temperatures below zero continue to occur until the end of April or early in May, after which the cold moderates. Hard frost continues frequently during May and although light frost will occur occasionally during June, July and August, it is apparently not sufficient to injure vegetation. After the second week in September much lower temperatures are recorded and plant life rapidly disappears; ice also forms upon the sea a little later in the month. After the second week in October temperatures below zero often occur. Strong winds and gales are unusually frequent and during the summer months fogs also are frequently recorded. Snow is liable to occur at any time during the summer but it is soon melted. Thunderstorms are seldom recorded.

SMOKE AS A PREVENTIVE OF FROST.

The prevention of frost by smoke or arresting radiation is not a new suggestion, but it is perhaps not so well known that a few remarks upon the subject would be out of place. In Manitoba and the North-west Territories of Canada, where summer frosts are liable to occur and where much damage to grain, just before ripening, has from time to time been caused, smoke has been successfully tried and it is believed is still in vogue

in some districts. The labour and expense of supplying fuel has militated considerably against the practice and this has been partly owing to a want of knowledge of the requirements. Unfortunately it has not yet been feasible to extend the forecast system to the North-west Territories, but in Manitoba where they may be seen by many farmers, they should be watched for predictions of frost and if the direction of the wind is given, small heaps of refuse should be deposited at about seventy-five feet apart on the windward side of the grain field, at such a distance from it that the smoke will have time to spread. These heaps should be constructed so that they will readily ignite and should be composed firstly of dry material and then of green boughs or weeds or other smoke producing substance. The thermometer should now be watched carefully and as soon as the temperature falls to or about 34° the bonfires should be started. Generally the minimum temperatures occur a little before sunrise and it is probable that most of the damage in the past has been done at or about that time. As it is not always possible to forecast frost it is advisable not to take any risk, if the night is clear and cool watchfulness should be doubled and this suggestion will apply at all times to the Territories where forecasts are not posted. If there is not sufficient wind to drift the smoke over the field it will be necessary to reconstruc and distribute the fires.

PREVENTION OF HAIL BY CANNONADING.

Like the so called makers of rain by cannonading we now have preventers of hail by the same process, but the latter are almost wholly confined to Europe and for some time past experiments to this end have been carried on in Italy. Although the larger portion of the members of the Congress held at Padua a short time ago for the purpose of investigating the matter, were convinced of the prevention of hail by cannonading, the data produced was not at all satisfactory and in the Meteorologische Zeitschrift for March, 1901 it is stated that the successes and failures were not properly discussed. In the report of the Inspector General of the Italian Hail Insurance Company to the directors in Milan for 1900, he states that in a large number of cases in spite of prolonged and severe cannonading a great deal of damage was done by hail in the district where the firing was actually taking place, and concludes his report with the remark that cannonading is almost useless. We must admit that we have not very much faith in this weather shooting, nevertheless the matter is well worth investigating and we trust that in any future report upon the subject published full details will be given.

FORECASTS FOR MAY, 1901.

The forecasts issued by this office at 11 p m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of predictions issued during the month was 970. These were divided as follows :—

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Percentage
Manitoba	92	69	13	10	82·1
Lake Superior	105	80	13	12	82·4
Lower Lake Region	119	94	21	4	87·9
Georgian Bay	119	98	15	6	88·7
Ottawa Valley	109	89	15	5	88·5
Upper St. Lawrence	109	86	17	6	86·7
Lower St. Lawrence	106	82	15	9	84·4
Gulf	105	78	18	9	82·9
Maritime Provinces	106	68	24	14	75·5
Total	970	744	151	75	84·5

PACIFIC COAST DIVISION.

The forecasts are issued at 8 p.m. every night and are published in the daily papers in Victoria and Vancouver, and are for the 24 hours beginning at 5 a.m. the following day. The number of predictions issued during the month was 244. These were divided as follows :—

DISTRICTS.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Percentage.
Victoria and Vicinity	128	100	9	19	81·6
Lower Mainland	116	79	14	23	74·1
Total	244	179	23	42	78·1

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

Massett, B.C., reports two smart shocks of an earthquake felt at 5 a.m. of May 29th.

R. F. STUPART,
Director.

Meteorological Office, Toronto,
26th June, 1901.

METEOROLOGICAL SERVICE, DOMINION OF CANADA.

Monthly Weather Review.

VOL. XXV JUNE, 1901. No. 6

INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm signal agents. For the material used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

REMARKS UPON THE WEATHER.

The weather of June was characterized by high mean temperature in the eastern portion of the country and low mean temperature in the western portion it being below average west of Ontario to the Pacific and somewhat above elsewhere. The rainfall which was typical of June varied considerably with the district, altogether, however, it was above average west of Lake Superior and generally below in Ontario, excepting in districts contiguous to Lake Superior and the Georgian Bay where on the contrary it was above. Elsewhere the rainfall was very variable. The proportion of bright sunshine showed much the same variation as the mean temperature it being below average in the western portion of the country and generally above in the eastern portion. Frosts occurred in each province, they being mostly severe in the Territories and Manitoba where damage was done to vegetation, but generally throughout the country the condition of plant life on the 30th was excellent and considerably above average.

In British Columbia the weather was generally dull, cool and somewhat wetter than usual, the proportion of bright sunshine and temperature being below average in most districts and the rainfall a little above. Fresh winds were very frequent but few storms of importance were reported. At Nanaimo there was a heavy storm with hail on the 4th, when much damage was done to crops. Frosts occurred at some places but they were generally harmless, and plant life, though backward on the 30th, was in good condition.

In the North-west Territories the weather was unusually cool, cloudy and wet although in the early portion of the month it was warm and dry. The proportion of bright sunshine was considerably below average and the mean temperature was deficient while the rainfall exceeded the average. Frosts occurred in many places and in the vicinity of Calgary snow was recorded on the 5th, 12th and 24th. Vegetation though somewhat backward on the 30th was in excellent condition.

In Manitoba the weather conditions were very similar to conditions in the Territories the mean temperature and proportion of bright sunshine being below average and the precipitation considerably above. On or about the 5th when the temperature was exceptionally low snow occurred at many places and hard frost was also recorded. There were few fine days during the month, nevertheless the condition of vegetation on the 30th was good, though somewhat backward.

In Ontario the weather did not depart much from the normal but it was somewhat warmer and drier than usual and in most districts the proportion of bright sunshine exceeded the average. In districts contiguous to Lake Superior and east of the Georgian Bay the rainfall, contrary to conditions elsewhere, was above the average. The maximum temperatures which at most places were between 90° and 100° occurred on or about the 27th. Frost was reported from some places during the month but no damage seems to have been caused thereby and on the 30th the condition of plant life was above average.

In the Province of Quebec the weather was warmer than usual, the mean temperature being somewhat above average; and in the central portion of the province the rainfall exceeded the average, although deficient at many places elsewhere. Severe thunder storms occurred on or about the 27th between Richmond and Quebec and in the City of Quebec they were accompanied by hail, loss of life and much damage to property, being reported. The maximum temperatures in the western portion of the province exceeded 90° at most places but elsewhere they were generally much lower. Light frost occurred only at one or two places and no damage to vegetation was reported, it being in excellent condition on the 30th.

In New Brunswick the weather was generally somewhat warmer than usual and in most districts the rainfall exceeded the average. There were some exceedingly fine days and the proportion of bright sunshine was a little above average. At St. John there was a phenomenal rainfall on the night of the 23rd and 24th during a severe thunderstorm when 4·8 inches was recorded in a comparatively short time. Light frosts occurred on or about the 16th and some slight damage was caused thereby at a few places; nevertheless, vegetation was more forward than usual and in good condition.

In Nova Scotia the weather did not differ much from the normal; it was, however, a little warmer than usual whilst the rainfall varied with the district. The maximum temperatures which nowhere exceed 88° occurred at most places on or about the 28th. A severe north-easterly gale occurred locally on the 13th when a wind velocity of 60 miles per hour was recorded at Sydney and much damage to property was reported. Frost was recorded at a few places but it does not appear to have done much damage and reports regarding vegetation were very favourable.

The weather in Prince Edward Island was generally milder and drier than usual, nevertheless there were short periods of unseasonably cold weather. No gales were reported and the temperature did not reach the freezing point. The maximum temperatures at most places were between 80° and 85°. Vegetation which was unusually forward was above average on the 30th.—F. F. Payne.

ATMOSPHERIC PRESSURE.

The distribution of the mean atmospheric pressure varied very little from the average in any portion of Canada. British Columbia and Alberta showed a positive departure of from ·030 to ·050 of an inch. The Maritime Provinces from ·010 to ·020 of an inch, and elsewhere it was either average or from ·010 to ·020 of an inch below.

LOW AREAS.

Eight areas of depression were charted and there were other minor ones whose paths were so doubtful that they could not be accurately tracked. A striking phenomenon was the frequent and excessive rainfalls brought by the depressions of the month to the North-west Territories and Manitoba.

No. 1 was a feeble depression which passed over Ontario, Quebec and the Maritime Provinces between the 2nd. and 4th., attended by numerous showers and thunderstorms. No. 2 was accompanied by very bad weather in the North-west Territories and Manitoba; between the 1st and 6th heavy rains and frequent thunderstorms occurred, and several inches of snow were also recorded in many localities. The depression eventually passed over the Lake Superior Region and thence to the Lower St. Lawrence Valley and the Gulf when rain fell copiously along and in proximity to its path, but not to any extent at a distance from its centre. No. 3 hovered in the North-west Territories and Manitoba between the 7th and 9th, attended by numerous and heavy rains and then dispersed. No. 4, after oscillating to and fro over the western portion of the continent from the 7th. until the 11th, then moved on the 12th into Manitoba, whence it travelled far North over the country to the Lower St. Lawrence Valley where it abruptly changed its course to a southerly one and passed off the Nova Scotian Coast. This depression caused very heavy rains in the North-west Territories and Manitoba as well as local snowfalls in Alberta, a few scattered showers only in Ontario and Western Quebec, but a general rain again in Eastern Quebec and the Maritime Provinces. On the Gaspé Coast at the same time the winds increased to a moderate gale from the eastward. No. 5 travelled slowly over the Territories and Manitoba, between the 14th and 18th, accompanied by very frequent rains, the fall being exceptionally heavy in Manitoba. Afterwards it passed far north over the country and reached the Gulf of St. Lawrence on the 21st, its presence being marked by numerous thunderstorms in the Ottawa and St. Lawrence Valleys and by showers in the Maritime Provinces. No. 6 moved into the Lower Lake Region on the 17th from the Western States and broke up on the following day. It caused a few scattered showers in Ontario. No. 7 was situated in Alberta on the 19th. It then passed over the North-west States into the Lower Lake Region and thence eastward skirting the Nova Scotian coast. There were many showers and thunderstorms accompanying this depression, the rainfalls being often heavy and phenomenally so in the Western portion of the Maritime Provinces. No. 8 hovered about the North-west portion of the Continent from the 22nd. until the 28th, its centre being oftener in the North-west States than in Canada. On the 28th a rather sudden increase of its energy occurred, its centre being transferred to Lake Superior. The next day however it again diminished and passed into the Gulf of St. Lawrence. Frequent and heavy rains were again recorded in the North-west Territories and Manitoba during the presence of this area, but elsewhere in Canada they were only local showers or thunderstorms.

HIGH AREAS.

There was very little high pressure during the month. Three areas only were sufficiently well marked to be charted as follows:—

No. 1 moved into the North-west on the 5th., thence slowly eastward to Lake Superior and on the 9th., southward over the Lower Lake Region, passing off the Middle Atlantic Coast during the night of the 10th. It was attended by decidedly cool weather, and in the Territories and Manitoba during its presence sharp frosts occurred nightly. No. 2 was a moderate area which covered Ontario, Quebec and the Maritime Provinces on the 12th and 13th, accompanied by very fine weather. It seemingly had its origin in the far North. No. 3 was situated in the Territories and Manitoba on the 12th. and 13th, and then passed north of Lake Superior into the St. Lawrence Valley. It was attended by decidedly cool weather, and on the night of the 15th sharp local frosts occurred in the Maritime Provinces. From the 17th until the 21st fairly high pressure lay over and to the southward of the Maritime Provinces, attended by a period of very fine, pleasant weather.

WINDS.

On Vancouver Island and the Lower Mainland of British Columbia the direction was almost entirely westerly and south-westerly and on many days the force of a fresh breeze was attained.

In the North-west Territories and Manitoba no one direction predominated but fresh to strong breezes were of frequent occurrence.

In Ontario the direction was variable, the force of more than a moderate breeze was seldom experienced but on the 7th a moderate gale from the west and north-west was generally recorded, from the Georgian Bay to Lake Ontario.

In the St. Lawrence Valley and the Gulf the direction was also variable, the easterly perhaps being more in evidence in the Gulf than elsewhere. Moderate local easterly gales prevailed on the 7th and the 13th; and on the 29th and 30th, from the easterly veering to the south-westerly, but at other times the wind mileage was as a rule quite small.

In the Maritime Provinces light to moderate variable winds generally obtained, the force of a fresh breeze being seldom reached, but on the 13th a heavy local gale occurred in Cape Breton.

The gale which prevailed in the Lake Region on the 7th was duly warned but no notification was given of the local storms in the Lower St. Lawrence Valley, the Gulf, and Cape Breton.

BRIGHT SUNSHINE.

The mean proportion of bright sunshine was much below the average in the North-west Territories and Manitoba and above to a small extent in Ontario, Quebec, the Maritime Provinces and also on Vancouver Island. The excess ranged from 0·01 at Victoria, B.C. to 0·06 per cent at Montreal and Barrie, and the deficiency from 0·10 at Brandon, to 0·24 per cent at Battleford.

TEMPERATURE.

The mean temperature of June was above average from Algoma eastward to the Gulf of St. Lawrence and Atlantic, and below average over the Rainy River District and westward to the Pacific; the highest positive departure, amounting to about 6°, occurred near the Georgian Bay, and the largest negative departures from 6° to 9° in Southern Alberta and Western Assiniboia; in Manitoba the negative departure ranged from 1° to 3°, and in British Columbia from 2° to 6°.

The Highest and Lowest temperatures in each Province during June, 1901, were:

British Columbia,	94°·5 on 17th at Spence's Bridge.	28°·5 on 5th at Barkerville.
North-west Territories,	86°·0 on 1st at Gatesgarth.	25°·5 on 8th at Calgary.
Manitoba,	94°·0 on 1st at Aweme.	25°·5 on 7th at Minnedosa.
Ontario,	100°·1 on 27th at Haileybury.	22° 0 on 8th at Savanne.
Quebec,	92°·0 on 29th at Montreal.	29°·0 on 9th at St. Agathe des Monts.
New Brunswick,	92°·2 on 27th at St. Stephen.	31°·5 on 16th at Sussex.
Nova Scotia,	88°·0 on 28th at Wolfville.	31°·3 on 16th at Truro.
Prince Edward Island.	83°·0 on 6th at Charlottetown.	35°·6 on 16th at Summerside.

PRECIPITATION.

The rainfall was excessive from Lake Superior to the Pacific, and particularly so in Manitoba and Southern Alberta. In British Columbia and the larger part of the North-west Territories the average was exceeded to a lesser extent. In Ontario there was a fairly pronounced and general deficiency, except in New Ontario and that part of the province lying directly to the eastward of the Georgian Bay. In both the eastern and western portions of Quebec there was a deficiency but in the middle sections a very pronounced excess, owing mainly to unusually heavy thunderstorms which occurred on the 27th. Along the Gulf shores of New Brunswick and Nova Scotia, and also in Prince Edward Island, the rainfall was scant, but westward and southward of this in the Maritime Provinces, it was equal to average or above.

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JUNE, 1901.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	Pressure. Mean reduced.	Pressure. Highest.	Pressure. Lowest.	Pressure. Range.	Temperature. Mean.	Temperature. Difference from average.	Temperature. Years observt.	Temperature. Highest.	Temperature. Date.	Temperature. Lowest.	Temperature. Date.	Temperature. Mean daily range.	Mean temperature of Dewpoint.	Mean relative Humidity.	Mean amount of Cloud.	No. of days completely clouded.	Direction of Wind from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of hours.	Velocity of Wind. Mean miles per hour.	Highest day's velocity.	Date and direction from.	Precipitation. Amount.	Difference from Average.	Heaviest fall in month.	Days with .01 or more	No. of Fair days.	No. of Auroras.	No. of Thunderstorms.	No. of Fogs.
	° ′	° ′		in.	in.	in.		°	°		°		°		°																	in.	in.	in.					
BRITISH COLUMBIA:																																							
Victoria	48 21	123 19	85	30 04	30 22	29 76	0 46	54 7	— 1 8	10	74	0 17	43 7		4 12 5			6	4	38	12	16	20	99	309	109	13	21	720	15 0	19 6	19 SW	1 06	—0 24	0 21	12	12	0	0	1
Barkerville	53 2	121 35	4180	29 88	30 17	29 56	0 61	47 4	— 3 4	13	74	0 19	28 0		5 23 5					3	1	1	0	2	3	2	0	48	60		VI	23 N	4 00	+ 0 52	0 48	17	13	0	1	0
Agassiz	49 14	121 51	52					53 7	— 3 4	11	89	0 16	41 0		28 24 9			5	1	15	0	0	0	27	0	48	0	0	90				2 30	—2 24	0 65	7	21	0	0	0
Port Simpson	54 34	130 26	26	29 96	30 21	29 60	0 52	53 6	+ 1 0	14	70	0 18	35 0		6 16 9	49 6	84	7	13	1	0	0	3	9	3	17	4	53	90	I	III	11 W	0 07	—0 87	0 21	6	21	0	0	1
Spence's Bridge	50 24	121 20	770					61 5	— 4 0	10	94	5 17	40 5		7 26 2																		3 15	—0 01	0 93	15	5	0	0	0
Hazelmere	49 3	122 43						56 4	—		88	1 0	18		37 0					0	4	4	17	2	31	1	1	0	60										
Revelstoke	51 0	118 6	1476																																				
Kamloops	50 41	120 29	1193	29 91	30 17	29 60	0 57	60 8	—		89	2 18	41 0		4 22 9			6	11											VI	4 W	2 09	—	0 48	15	13	0	0	0
Princeton	49 29	120 29	1650					54 2	—		84	0 18	33 0		15 33 0																		1 04	—	0 31	8	22	0	1	0
Pilot Bay	49 36	116 55																																					
Rivers Inlet	51 39	127 20	20	30 00	30 26	29 56	0 70	53 1	—		73	4 18	36 9		4 53 1	49 5	83	6	5	0	0	7	2	0	6	32	0	43	90	I	III	18 W	3 30	—	0 74	11	19	0	1	1
Stuart's Lake	54 28	124 12	1800																																				
French Creek	49 20	124 36						54 9	—		78	0 17	37 0		15 19 0																		1 94	+ 0 33	0 52	11	19	0	0	0
Duncan	48 45	123 42	40					56 0	— 2 6	11	86	0 18	34 0		7 22 7																		1 91	+ 0 79	0 54	11	20	0	0	0
Coldstream	50 14	119 15	1246					58 8	—		86	1 0	28 4		14 25 7																		1 41	—	0 45	9	21	0	0	0
Nanaimo	49 10	123 53						54 9	—		82	1 17	32 9		4 19 4	50 5	77	6	2	8	10	10	22	0	9	8	9	14	90	II	VI	5 SE	2 68	—	0 97	14	14	0	1	1
Chilliwack	49 11	121 57	21	30 00	30 20	29 72	0 48	57 3	—		86	0 18	42 0		8 15 9	51 8	88	7	1	3	1	11	2	16	25	31	1	0	90	12 7	22 0	3 S W	4 83	—	1 63	20	10	0	2	0
Port Bolus	50 32	128 3																																					
Midway	49 0	118 46	1800					56 0	—		89	0 30	30 0		7 28 4																		2 50	—	0 60	9	21	0	0	0
Enderby	50 32	119 7	1180					54 5	—		84	0 18	35 0		22 27 2																		2 45	—1 04	0 41	13	15	0	4	0
Nicola Lake	50 9	120 39	2120					52 9	—		81	0 19	35 5		8 18 0																		3 10	—	0 44	19	1	0	0	0
West Kootonay	49 20	117 50						55 8	—		76	0 19	33 0		4 17 0																		2 91	—	0 59	12	8	0	0	0
Garry Point	49 21	123 17						54 9	—		67	6 18	38 0		15 16 4					2	1	32	6	19	3	19	5	3	90	9 3	24 0	3 W	2 91	—	0 59	12	8	0	0	0
Tobacco Plains	49 1	115 53	2300					50 9	—		79	1 19	30 0		9 23 4																		4 10	—	0 42	18	12	0	3	0
Vancouver	49 17	123 5	195					55 7	—		83	4 18	33 5		23 17 5																		5 01	—	1 44	16	14	0	0	0
New Westminster	49 13	122 54	330	30 05	30 23	29 76	0 47	55 6	—		82	5 18	39 2		15 17 1			7	12												IX	3 SW	5 54	—	1 80	20	10	0	0	0
a Ladner	49 5	123 4						—	—		81	0 18	35 0		15 —																		2 78	—1 42	0 69	9	21	0	0	0
N. Nicomen	49 12	122 2	59					56 2	—		84	0 18	40 0		17 17 4																		6 11	—	2 01	18	12	0	2	0
Quesnelle	52 59	122 30	1700					56 1	—		87	0 18	36 0		28 28 2																		1 95	—	0 38	10	20	0	0	0
Clayoquot	49 11	125 47	40					51 5	—		74	0 18	37 0		4 20 3																		4 63	—	1 48	11	19	0	0	2
Cape Scott	50 48	128 27																																					
Masselt	53 58	132 0	30																														2 95	—	0 65	18	12	0	2	0
Quesnelle Forks	52 45	121 55						52 6	—		81	0 18	31 0		5 24 1																									
Bella Coola	52 20	126 54	15																																			0	0
Cranbrook	49 30	115 50	40					51 4	—		80	0 19	30 0		8 24 7																									
Nelson	49 29	117 21																															0 70	—	0 13	12	18	0	0	0
Okanagan Mission	49 52	119 29						56 9	—		86	0 19	36 2		18 23 4																		2 99	—1 22	0 55	19	11	0	0	0
Matsqui	49 7	122 16						55 9	— 2 7	12	85	0 18	38 5		22 18 6																		2 61	—	0 40	18	11	0	1	0
Rossland	49 6	117 40	3400																														1 53	—	0 33	13	17	0	0	0
Alberni	49 15	124 49	300					57 4	—		90	2 18	38 9		4 20 0																		1 52	—	1 56	14	16	0	1	0
Saturna Island	48 47	123 12	14					54 9	—		79	0 18	40 0		10 16 9																									
Kuslo	49 52	117 0	0					57 1	—		80	0 18	35 0		7 22 0																									
N.-W. TERRITORIES:																																							
Medicine Hat	50 1	110 37	2161	29 85	30 14	29 46	0 68	55 0	— 7 2	17	78	6 21	31 5		6 21 0			7	6	6	2	10	1	7	11	17	4	2	60		21 0	21 W	4 01	—1 25	0 78	18	8	0	6	0
Edmonton	53 33	113 30	2178	29 84	30 22	29 49	0 73	53 1	— 4 2	18	80	0 19	34 0		4 21 2			7	7	5	6	6	3	0	0	11	14	15	60		13 0	13 E	3 00	+ 0 14	0 54	19	9	0	0	1
Swift Current	50 20	107 45	2439																														4 83	—1 41	2 38	12	16	0	5	3
Qu'Appelle	50 30	103 47	2116	29 80	30 18	29 37	0 81	55 8	— 4 0	18	76	8 1	3 0	6	0 22 3			7	5	1	0	10	4	5	15	5	11	3	60		17 5	27 SW	4 88	—1 41	2 38	12	16	0	5	3
Calgary	51 2	114 2	3389	29 86	30 16	29 50	0 66	50 4	— 5 4	17	77	0 19	32 0		7 21 9			7	10												30 0	24 W	7 00	—4 55	2 86	18	9	0	0	0
Prince Albert	53 10	106 0	1432	29 79	30 27	29 42	0 85	54 8	— 3 0	16	73	5 21	31 5		6 20 3			8	12	6	9	5	3	5	2	1	2	27	60		12 0	17 NW	3 72	—1 21	0 49	19	10	0	1	1
Battleford	52 41	108 20	1620	29 84	30 30	29 37	0 73	55 6	— 4 1	10	77	0 20	34 0		6 18 3			8	7	32	76	83	112	9	50	184	129	45	720	9 9	18 0	4 E	4 45	—1 14	1 16	22	4	0	0	0
Qonikup	53 30	101 20																																					
a Banff	51 10	115 35	4542	29 91	30 33	29 47	0 86	47 1	—		74	1 18	30 0		4 22 0			7	7	3	8	0	0	3	9	10	6	21	60		V	25 SW	4 00	—	1 14	23	5	0	0	0
Calgary (2)	51 2	114 2																																					
Chaplin	50 27	106 40	2202					53 0	— 9 9	16	89	0 28	35 0		26 21 8																		2 79	—	0 85	11	19	0	2	0
Moose Jaw	50 21	105 35	1745					56 0	— 7 8	14	0	0 20	33 0		6 23 9					3	5	5	5	10	5	10	12	5	60				4 85	—3 12	1 50	11	11	0	2	0
Regina	50 27	104 37	1885					56 5	— 4 0	17	89	0 21	32 5		9 22 6																		5 63	+4 10	2 67	12	18	0	0	0
Indian Head	50 28	103 40	1924					56 2	— 5 2	12	80	0 1	31 0		7 22 3			6	13	15	9	6	13	10	19	0	90													

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PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JUNE, 1901

a. Barometer not reduced to Sea Level. *Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	Pressure. Mean reduced	Highest.	Lowest.	Range.	Temperature. Mean.	Difference from average.	Yearsobserv'd.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of Dewpoint.	Mean relative Humidity.	Mean amount of Cloud.	No. of day completely cloudeds.	Direction of Wind from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of hours.	Velocity of Wind. Mean miles per hour.	Highest day's velocity.	Date and direction from	Precipitation. Amount.	Difference from Average.	Heaviest fall in 1mouth.	Days with .01 or more	No. of Fair days.	No. of Auroras.	No. of Thund. storms	No. of Fogs.
	° ′	° ′		in.	in.	n.	in.	°	°																								in.	in.	in.					
ONTARIO—*(Continued.)*																																								
*Otonabee	44 20	78 18	.....	.....	.....	.....	.....	65·9	—	6	93 0	27	44 0	9	—	.....	.....	.....	.....	0	1	9	9	3	35	16	17	0	90	.....	.....	.....	2 10	—	0·30	8	22	0	4	1
Windsor	42 20	83 4	.....	.....	.....	.....	.....	67·2	— 0·6	26	86·8	28	40 4	2	18 5	.....	.....	.....	.....	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2 59	—0 85	1 06	9	18	0	0	0
Alton	43 51	80 5	1200	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
aGuelph	43 33	80 16	.....	.....	.....	.....	.....	64·5	+ 1·2	14	92·4	28	35 0	9	19 1	.....	.....	.....	.....	0	0	4	2	1	8	10	5	0	30	.....	.....	.....	1 73	—1 18	1·11	6	23	0	1	0
*North Bruce	44 23	81 25	.....	.....	.....	.....	.....	64 3	+ 2·1	13	94 0	27	44 0	8	—	.....	.....	.....	.....	1	3	8	7	2	46	21	2	0	90	.....	.....	.....	0 71	—1 67	0 24	9	21	0	0	1
Collingwood	44 30	80 15	.....	.....	.....	.....	.....	63 9	— 0·9	10	90 0	23	39 0	10	16 4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 39	—0 89	0 32	7	23	0	0	0
Cockyln	44 28	80 36	1339	.....	.....	.....	.....	62 9	—	1	85 0	23	33 0	10	22 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 65	—	0 50	6	21	1	0	0
Whiteside	45 0	79 36	.....	.....	.....	.....	.....	65 2	— 2·1	17	92·0	28	37 0	10	22 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2 85	+0·01	0 92	12	15	0	2	0
Spruecedale	45 30	79 40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Orillia	44 34	79 24	.....	.....	.....	.....	.....	64 3	+ 0·9	9	91·5	27	35·0	9	21·9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2 99	—0 32	1·56	10	20	0	0	0
Coldwater	44 38	79 40	.....	.....	.....	.....	.....	63 5	0·4	14	93·5	28	32·6	10	22 9	.....	.....	.....	.....	0	3	2	17	1	7	10	12	8	60	.....	.....	.....	2 53	—0 74	1 18	10	20	0	5	0
Beatrice	45 8	79 20	.....	.....	.....	.....	.....	63 3	+ 2·4	25	88·5	27	38 0	10	23 5	.....	.....	.....	5	4	6	2	3	7	14	8	1	14	35	90	I	II	8 NW	3 32	+0·05	1 50	8	22	0	1	2
Gravenhurst	44 54	79 20	770	.....	.....	.....	.....	64 6	+ 1·5	30	91 0	27	36 0	10	27 5	.....	.....	.....	4	0	6	1	12	4	15	8	13	10	21	90	II	IV	29 SW	3 02	+0·62	1 05	9	17	0	4	0
Haliburton	45 1	78 28	.....	.....	.....	.....	.....	64 2	+ 0·5	13	95 0	28	34 0	10	26 6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3 85	+0·42	0 91	15	15	0	5	0
*Point Clark	44 5	81 44	595	.....	.....	.....	.....	65·7	+ 5·4	25	90 0	28	43 0	9	—	.....	.....	.....	2	0	16	3	5	2	50	5	4	1	4	90	III	VII	30 S	0 60	—1 40	0 61	5	28	0	2	0
Birnam	43 2	81 55	.....	.....	.....	.....	.....	67 5	+ 2·6	17	95 0	27	32 5	9	22 7	.....	.....	.....	.....	.....	0	5	2	1	10	14	12	11	5	60	.....	.....	.....	1 40	—2 06	0 54	6	24	0	2	0
London	42 59	81 13	808	29·95	30 25	29 62	0 63	66 8	+ 0·4	18	93 0	27	33 0	10	23 5	0 59	71	2	0	1	9	0	1	0	5	65	9	0	90	11	IV	2 W	0 72	—2 67	0 35	4	20	0	2	0
Port Stanley	42 40	81 13	592	29 96	30 23	29 70	0·53	64 8	+ 1·0	27	85·4	27	34 2	9	20 1	.....	.....	.....	5	0	38	50	220	64	46	124	138	37	3	720	7 8	17 3	7 W	2·08	—1 65	0 88	6	22	0	2	0
Woodstock	43 8	80 47	980	29·95	3·23	29 63	0·60	65 2	+ 0·2	28	91 0	27	37 0	10	22 5	61 7	88	4	0	12	0	0	0	112	41	209	0	346	720	3 5	14 0	7 W	2·07	—1 47	0 84	5	25	0	0	0
Port Dover	42 47	80 13	635	.....	.....	.....	.....	64 4	— 0·1	23	91 4	27	40 4	10	18 2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 43	—0 72	1 2	5	25	0	1	0
Pelee Island	41 50	82 38	.....	.....	.....	.....	.....	64 3	— 4·5	21	84 0	24	34 0	11	17 9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0 34	—2 86	0 14	3	27	0	0	1
St. Georgge	43 14	80 12	722	.....	.....	.....	.....	66 9	+ 1·5	17	91 5	27	41 0	3	20 7	.....	.....	.....	3	2	2	25	0	0	0	3	55	5	0	90	.....	.....	.....	2 60	+0 67	1 08	10	20	0	1	0
Paris	43 12	80 25	840	.....	.....	.....	.....	68 1	+ 1·6	11	94 0	27	36 0	10	28 2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2 40	—0 89	0 75	10	20	0	3	0
St. Mary's	43 15	81 11	1040	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Biscotasing	47 3	82 8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
White River	48 35	85 16	1252	29·93	30·29	29 29	35 0	60 0	+ 2·5	12	94·8	27	26 0	9	21 1	.....	.....	.....	7	5	32	42	117	39	87	123	45	16	219	720	4 9	14 0	29 W	2·08	—0 14	0 62	12	15	0	2	0
Port Arthur	48 27	89 12	644	29 87	30 24	29 35	0·89	55 8	+ 0·8	21	85 0	27	32 0	8	20 7	.....	.....	.....	6	2	44	26	353	48	7	63	122	37	20	720	5 6	15 4	29 SW	3 76	+1·03	0·76	14	15	0	4	0
Stony Creek	43 50	79 45	292	.....	.....	.....	.....	67 3	+ 0·6	17	98·0	27	40 0	12	22 9	.....	.....	.....	3	0	1	2	21	4	11	24	10	4	13	90	III	V	28 S	2 56	—0 10	1 06	8	22	0	3	1
Agincourt	43 47	.....	.....	.....	.....	.....	.....	64 3	—	0	94 0	28	40 0	9	20 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2 04	—	0 84	8	19	0	6	1
Pickering	43 50	79 4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hamilton	43 16	79 54	303	.....	.....	.....	.....	66 9	+ 1·1	25	95 3	27	43 4	8	17 1	.....	.....	.....	.....	.....	1	5	5	1	7	6	17	3	12	60	.....	.....	.....	2 24	—0 38	0·97	7	23	0	4	1
Port Hope	43 56	78 20	.....	.....	.....	.....	.....	65 3	—	5	94 0	27	40·0	1	21 6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 41	—1 23	0 50	7	23	0	1	2
Kinmount	44 40	78 38	.....	.....	.....	.....	.....	64 3	—	4	95 0	28	36 5	2	25 8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3 68	—	0 71	10	20	0	0	3
Cockburn Island	45 57	83 18	610	.....	.....	.....	.....	58 3	—	4	92 0	28	35 0	9	26 1	.....	.....	.....	.....	.....	2	4	4	17	6	9	11	4	3	60	.....	.....	.....	4 76	—	1 17	10	20	0	3	1
Chatham	42 23	82 12	595	.....	.....	.....	.....	67 7	+ 1·3	12	92 2	27	38 0	13	19 7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 62	—1 05	1 00	8	23	0	0	0
Dalhousie Mills	45 20	74 29	.....	.....	.....	.....	.....	65 2	—	2	97 0	28	46 0	21	18 5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 49	—	0 68	6	24	0	0	0
Menford	44 37	80 37	.....	.....	.....	.....	.....	62 5	—	3	94 0	27	37 0	9	19 6	.....	.....	.....	.....	.....	3	3	3	3	2	15	12	1	18	60	.....	.....	.....	2 61	—	0 74	9	21	0	4	0
Ruthven	42 3	82 41	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Listowel	43 44	80 58	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bruce Mines	46 18	83 55	.....	.....	.....	.....	.....	59·4	—	4	92 0	27	34 0	9	20 7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3 36	—	0 88	13	17	0	5	0
Rat Portage	49 48	94 32	1102	.....	.....	.....	.....	60 6	—	2	88 1	27	33 7	7	16 9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3 88	—	0 67	17	13	0	2	0
Dunnville	42 54	79 39	.....	.....	.....	.....	.....	65 6	—	2	86 2	27	40·2	8	18 9	.....	.....	.....	.....	.....	0	2	2	0	4	14	3	5	0	30	.....	.....	.....	1 14	—	0 42	6	24	0	3	0
*Heron Bay	48 40	87 10	.....	.....	.....	.....	.....	58 4	+ 0·7	11	82·0	25	35·0	7	—	.....	.....	.....	.....	.....	13	6	0	0	3	7	52	0	9	90	.....	.....	.....	3 16	+0·74	0 95	7	23	0	0	3
Sturgeon Falls	46 16	79 54	.....	.....	.....	.....	.....	64 0	—	2	92 0	17	34 9	9	24 2	51·9	50	.....	.....	.....	4	13	3	0	18	22	20	3	2	85	.....	.....	.....	1 62	—	0 46	10	19	3	1	0
QUEBEC:—																																								
Montreal	45 30	73 35	187	29·89	30·23	29 55	0 68	66 8	+ 1·9	27	92 6	29	43·7	9	17 2	.....	71	.....	.....	.....	12	32	69	41	62	364	80	20	40	720	12·2	21 6	9 SW	1·97	—1·56	0·47	10	18	0	4	0
Richmond	45 40	72 8	435	.....	.....	.....	.....	64 8	+ 1·6	23	92 0	29	37 0	14	24 4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5·63	+0·57	1 04	16	14	0	0	0
Brume	45 54	72 36	.....	.....	.....	.....	.....	63 6	+ 0·8	20	90 0	29	34 0	18	19 7	.....	.....	.....	3	6	16	3	7	1	18	24	20	1	0	90	.....	.....	.....	2 70	—2 00	0 56	12	16	0	2	0
Quebec	46 48	71 13	296	29 89	30·30	29 49	0·81	64 2	+ 2·9	27	89·2	28	40 0	16	21 7	.....	.....	.....	6	5	9	250	43	16	19	193	118	69	3	720	11 6	29 0	1 NE	9 28	+5 58	2 84	16	14	1	10	3
Chicoutimi	48 25	71 5	150	.....	.....	.....	.....	61 9	+ 3·8	23	88 6	26	33 2	16	23 7	.....	.....	.....	6	2	0	29	0	28	0	14	0	16	3	90	II	V	10 NW	3 15	—0 96	1 02	9	21	2	2	3
Father Point	48 31	68 19	20	29 87	30 37	29 45	0·92	53 8	+ 0·9	24	76 7	21	35·0	15	17 9	.....	.....	.....	7	11	3	3	17	1	3	9	12	4	8	60	.....	42 0	7E	3 37	+0 39	0 90	19	11	0	7	6
Cape Chatte	49 6	66 45	.....	.....	.....	.....	.....	56 2	+ 1·6	17	71 0	30	45 0	16	—	.....	.....	.....	.....	.....	0	6	8	1	0	16	6	0	53	90	.....	.....	.....	2 17	+0 04	0 37	9	21	0	0	8
Bicquette	48 25	68 53	.....	.....	.....	.....	.....	51 3	+ 0·5	19	70 0	28	41 0	14	—	.....	.....	.....	.....	.....	9	23	11	2	2	25	1	3	14	90	.....	.....	.....	3 40	—0 31	0 95	6	24	0	0	9
*Cape Magdalen	49 16	65 39	.....	.....	.....	.....	.....	56 0	+ 1·4	18	75 0	8	42 0	14	—	.....	.....	.....	.....	.....	1	3	2	2	20	4	2	35	14	90	.....	.....	.....	0 93	—2 09	0 25	12	18	0	0	7
Anticosti, W. Pt	49 52	64 32	.....	.....	.....	.....	.....	53 2	+ 1·3	18	72 0	28	43 0	11	—	.....	.....	.....	.....	.....	16	3	7	10	30	5	11	8	0	90	.....	.....	.....	2 46	—0 3	0·53	11	19	0	0	8
Anticosti, S.W. Pt	49 24	63 35	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

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PRECIPITATION AT STATIONS REPORTING RAIN, SNOW, WEATHER &c., DURING JUNE, 1901.

STATIONS.	Rainfall.					Remarks.
	Amount in inches.	No. of Days '01 or Over.	No. of Fair Days.	Heaviest Fall in Month.	Date.	
	in.			in.		
British Columbia—						
Goldstream Lake	2·13	12	18	0·31	25	
Royal Oak	0·87	6	24	0·24	27	
Coquitlam	2·14	9	21	0·65	27	Observations began on 13th.
Caulfields	4·61	16	19	1·59	1	
Kuper Island	2·45	15	15	0·60	24	12th, thunder and hail.
Nanaimo	2·54	10	20	1·52	24	
Port Essington	2·93	17	13	0·86	3	Month has been very cool.
Naas Harbour	1·32	10	20	0·48	2	
Vancouver	5·05	16	14	1·43	1	
Bella Coola	1·09	9	21	0·62	3	
N. W. Territories—						
Regina	4·78	20	9	1·80	26	Snow 5th and 12th; thunder 20th and 30th.
Weyburn	5·70	13	17	0·95	5	Snow on 5th.
Saltcoats	4·37	9	21	3·02	12	Frost on 6th.
Sterling	5·30	10	20	1·77	11	
Didsbury	7·52	17	13	2·60	24	4th, snow all day; thunder 3rd and 14th.
Calgary	7·10	14	15	3·20	24	Snow 4th, 12th and 24th; thunder on 19th.
Coutts	2·58	11	19	0·84	23	
Innisfail	8·87	12	11	2·91	24 25	Snow on 4th.
E. Beaver Hills	4·47	13	17	1·38	21	Thunder 18th, 19th, 21st and 22nd.
W. Beaver Hills	3·39	18	12	0·84	24	
Dirt Hills	5·93	15	15	1·72	25	5th, 4 in. of snow; thunder 9th, 15th, 19th, 21st, 22nd, 25th, 28th, 29th.
Manitoba—						
Oakbank	8·60	16	12	4·82	25	Snow on 6th; thunder 15th, 23rd, 24th and 25th.
Belmont	2·55	12	18	1·04	25	Snow 5th, 6th; thunder 3rd, 9th, 15th, 17th, 23rd, 30th.
Morden	6·91	14	13	2·30	15	Snow 5th.
Pembina Crossing	3·70	8	15	0·75	9	Snow 5th, 6th; thunder 3rd, 8th, 12th, 13th, 22nd, 23rd, 24th, 25th, 26th and 28th.
Norquay	5·09	15	13	1·06	14	Snow 6th, 7th; thunder 4th, 13th, 14th, 24th, 26th, 29th and 30th.
Cartwright	6·73	13	17	1·43	16	Snow on 5th; thunder 8th.
Beaver	4·69	16	14	0·92	14	
Clear Spring	4·33	11	17	1·24	17	5th, snow; thunder 17th, 26th, 29th.
Oak Lake	4·16	7	23	1·35	15	
Oakdale Park	6·94	20	10	1·46	15	5th, 4 in. snow; thunder 1st, 24th, 25th; large hail on 26th.
Deloraine	13·53	20	10	3·00	11	Thunder 2nd, 23rd, 25th, 28th and 30th; 3 in. snow on 5th, 1 in. on 7th.
Ontario—						
Uxbridge	1·52	7	23	0·36	1	
Dutton	0·60	2	27	0·40	2	Thunder 21st.
Ennismore	1·30	2	28	0·80	3	
Elgin	2·97	7	23	1·14	23	23rd, terrible storm thunder and hail.
Oliver's Ferry	3·01	5	25	0·39	2	22nd, heavy thunder.
Deer Park	2·39	11	19	0·54	2	
Port Burwell	1·14	4	27	0·62	26	
Westport	4·41	10	20	2·25	22	22nd, thunder storm.
N. Williamsburg	5·32	9	21	2·52	22	Thunder storms 1st, 2nd, 19th, 22nd.
Arden	3·03	12	18	1·30	22	Thunder storm, 19th, 23rd
Lansdowne	0·75	3	27	0·63	3	
Georgetown	1·96	10	18	1·29	2	Thunder storm 1st, 2nd, 22nd, 26th; auroras 15th.
Croydon	2·04	6	24	0·72	14	Terrible storm 22nd.
Midland	2·04	8	22	0·65	22	Thunder storm 1st, 17th, 22nd and 28th.
Goderich	1·60	4	26	0·60	1	
Watford	1·43	5	25	0·68	2	
Emsdale	2·52	13	17	1·09	22	Thunder 1st, 5th, 19th, 22nd, 28th; 22nd, hurricane of wind.
Jermyn	1·61	5	25	0·46	22	Thunder 22nd, severe.
Wyoming	1·50	6	24	0·38	2	Thunder 12th, 14th, 20th.
Wooler	2·53	10	20	0·96	2	Thunder 2nd, 20th, 22nd.
Westminster	2·47	5	25	1·15	1	Thunder 20th.
Aurora	1·19	8	22	0·96	2	
Wiarton	2·16	7	23	1·07	25	Thunder 18th, 22nd, with terrible hail storms, 25th and 29th.
Huntsville	2·65	6	24	1·30	22	Thunder 22nd, 28th.
Providence Bay	3·26	10	20	1·33	22	Thunder 2nd, 5th, 17th, 22nd (sharp) and 25th.
Ursa	4·52	10	20	1·73	18	Thunder 2nd, 6th, 18th, the worst here for years.
Sunshine	0·85	7	23	0·18	2	Thunder on 22nd, 28th.
Kitley	2·86	7	23	1·50	22	Thunder on 22nd; very heavy.
Orangeville	1·77	6	24	0·73	22	
Lynedoch	1·84	4	26	0·92	19	
Scarboro'	2·10	11	19	0·60	2	Thunder on 1st, 2nd, 6th, 13th, 19th, 20th and 22nd.
Lion's Head	1·94	3	27	0·82	17	Thunder on 1st, 17th and 24th.
Dealtown	2·00	4	26	1·45	20	Thunder on 10th, 20th.
Parma	1·94	8	22	0·54	3	
Mortague	2·74	5	25	1·30	22	Thunder storm 22nd, very heavy.
Princeton	2·61	7	24	0·92	2	
Cayuga	0·61	3	24	0·45	20	10th, hard frost; thunder on 20th.
New Brunswick—						
Point Escuminac	0·43	6	24	0·21	9	29th, thunder storm.
Nova Scotia—						
Port Morien	1·82	5	25	0·52	9	

PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY DURING WHICH THE SUN WAS ABOVE THE HORIZON IN THE MONTH OF JUNE, 1901.

	Hours Ending															
	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.
Victoria	0·00	0·21	0·35	0·42	0·45	0·52	0·58	0·68	0·66	0·62	0·55	0·54	0·49	0·46	0·52	0·09
Nanaimo	0·05	0·22	0·31	0·39	0·35	0·39	0·31	0·36	0·40	0·42	0·45	0·36	0·42	0·43	0·46	0·28
Agassiz	0·00	0·01	0·08	0·13	0·15	0·20	0·23	0·23	0·17	0·22	0·27	0·32	0·27	0·25	0·14	0·00
Battleford	0·20	0·24	0·27	0·29	0·32	0·38	0·35	0·44	0·48	0·46	0·41	0·35	0·31	0·27	0·11	0·02
Indian Head	0·00	0·01	0·07	0·36	0·42	0·44	0·45	0·44	0·44	0·39	0·45	0·44	0·32	0·32	0·23	0·11
Brandon	0·14	0·30	0·42	0·47	0·37	0·49	0·49	0·49	0·54	0·51	0·43	0·47	0·40	0·38	0·17	0·01
Winnipeg	0·04	0·33	0·36	0·39	0·41	0·41	0·46	0·39	0·48	0·55	0·53	0·52	0·53	0·51	0·04	0·00
Durham	0·00	0·03	0·32	0·43	0·47	0·61	0·63	0·64	0·59	0·46	0·25	0·22	0·24	0·48	0·53	0·21
Woodstock	0·00	0·30	0·62	0·69	0·69	0·77	0·80	0·76	0·76	0·82	0·73	0·60	0·55	0·52	0·29	0·01
Toronto	0·00	0·24	0·50	0·51	0·69	0·70	0·79	0·81	0·81	0·82	0·81	0·78	0·74	0·79	0·74	0·07
Lindsay	0·02	0·23	0·37	0·60	0·60	0·54	0·62	0·62	0·66	0·65	0·74	0·73	0·61	0·55	0·43	0·15
Barrie	0·04	0·44	0·57	0·59	0·58	0·64	0·67	0·72	0·76	0·70	0·74	0·72	0·64	0·67	0·37	0·00
Kingston	0·00	0·23	0·60	0·68	0·68	0·65	0·62	0·66	0·68	0·65	0·74	0·74	0·71	0·74	0·50	0·04
Ottawa	0·00	0·30	0·62	0·62	0·71	0·71	0·75	0·71	0·72	0·69	0·70	0·75	0·70	0·66	0·35	0·00
Montreal	0·00	0·30	0·54	0·63	0·63	0·64	0·65	0·67	0·68	0·68	0·65	0·64	0·66	0·67	0·34	0·00
Fredericton	0·18	0·35	0·47	0·56	0·59	0·67	0·68	0·69	0·68	0·63	0·61	0·63	0·57	0·46	0·08	0·00

	Victoria.	Kuper Island.	Agassiz.	Battleford.	Indian Head.	Brandon.	Winnipeg.	Durham.	Woodstock.	Toronto.	Lindsay.	Barrie.	Kingston.	Ottawa.	Montreal.	Fredericton.
Mean proportion for month (*Constant sunshine being 1*)	0·42	0·35	0·17	0·30	0·30	0·37	0·39	0·40	0·57	0·61	0·52	0·57	0·57	0·57	0·61	0·49
Difference from average	+ 0·01	—	− 0·16	− 0·24	− 0·14	− 0·10	− 0·17	—	+ 0·04	+ 0·05	− 0·03	+ 0·06	+ 0·03	—	+ 0·06	+ 0·02
Maximum daily amount	0·84	0·94	0·74	0·88	0·81	0·83	0·90	0·86	0·88	0·93	0·97	0·90	0·93	0·90	0·99	0·91
Date	17	17	17	23	26	19	29	4	23	9	16	16	16	4	16	16
No. of days completely clouded	2	4	16	6	6	6	4	7	1	0	3	1	1	1	2	4

Aurora recorded :—

Where the class of aurora is noted by the observer, it is given (I) being the brightest, (IV) the feeblest in brilliancy.

1. Channel Island, IV.

7. Aweme, III.

9. Sturgeon Falls, Pembina Crossing, III.

10. St. Stephen.

11. Sturgeon Falls.

12. Chicoutimi.

13. Haileybury, II.

14. Sturgeon Falls; Haileybury, IV.; Erasmus; Quebec, IV.

15. Haileybury, III.; Georgetown, IV.; Chicoutimi.

21. Aweme, II.

Thunder recorded on :—

1. Coldwater, Oakdale Park, Georgetown, Midland, Emsdale, Scarboro, Lion's Head, Lakefield, Bissett, Parry Sound, Deloraine.

2. Haileybury, Oakdale Park, Georgetown, Wooler, Providence Bay, Ursa, Scarboro, Kinmount, Haliburton, Otonabee, Lakefield, Bloomfield, Elkhorn, Crescent Lake, Minnedosa, Kingston, Toronto, Deloraine.

3. Chilliwack, Pembina Crossing, Clearspring, Didsbury, Pictou, Brome, Haliburton, Elkhorn, Halifax, Yarmouth, Minnedosa, Father Point.

4. Truro, Norquay, Medicine Hat.

5. Gravenhurst, Sturgeon Falls, Emsdale, Wiarton, Providence Bay, Haliburton, Point Clark, Cockburn Island, Lakefield, Owen Sound, Bullion.

6. Chilliwack, Lindsay, Haileybury, Ursa, Scarboro, Brome, Chicoutimi, Kinmount, Haliburton, Point Clark, Red Deer, N. Nicomen, Toronto.

7. Haileybury, Red Deer, Tobacco Plains, N. Nicomen, Medicine Hat, Quebec, Father Point, E. Beaver Hills

8. Pembina Crossing, Cartwright, Father Point.

9. Belmont, Moose Jaw, Muskowpetung, Nicola Lake, Qu'Appelle.

10. Dealtown, Nicola Lake.

11. Perce, Princeton.

12. Truro, Pembina Crossing, Kuper Island (*hail*), Wyoming, Savanne, Dawson, Alberni, Nicola Lake, Port Arthur, Port Stanley, Stratford.

13. Pembina Crossing, Norquay, Scarboro, Quebec, Toronto.

14. Guelph, Truro, Norquay, Didsbury, Wyoming, Pictou, Moncton, Sable Island, St. George, Paris, Erasmus, Dawson, Nicola Lake, Halifax, Yarmouth, Grand Manan, Father Point, Stratford.

15. Belmont, Oak Bank, Dirt Hills, Aweme, Winnipeg, Yarmouth.

16. Stony Mountain, Crane Lake, Red Deer, Qu'Appelle.

17. Belmont, Clearspring, Midland, Wiarton, Lion's Head, Port Arthur.

18. Gravenhurst, Haileybury, Coldwater, E. Beaver Hills, W. Beaver Hills, Lansdowne, Ursa, Hamilton, Port Dover, Kinmount, Lakefield, Medicine Hat, White River, Kingston, E. Beaver Hills.

19. Rivers Inlet, London, Calgary, E. Beaver Hills, W. Beaver Hills, Arden, Emsdale, Scarboro, Brome, Gatesgarth, Tobacco Plains, Barkerville, Ottawa, Medicine Hat, Bissett, Quebec, Kaslo, Bullion.

20. Regina, Dirt Hill, Wyoming, Wooler, Scarboro, Dealtown, Brome, Hamilton, Treherne, Manor, Crane Lake, Gatesgarth, Muskowpetung, Quebec, Port Stanley, Cayuga, E. Beaver Hills.

21. Morden, E. Beaver Hills, Dutton, Westminster, Treherne, Manor, Knee Hill, Red Deer, Muskowpetung, Prince Albert, Quebec, Father Point, E. Beaver Hills.

22. Gravenhurst, Lindsay, London, Durham, Coldwater, Morden, E. Beaver Hills, Elgin, Ont., Oliver's Ferry, Westport, N. Williamsburg, Lansdowne, Georgetown, Croydon, Midland, Emsdale, Jermyn, Wooler, Aurora, Wiarton, Huntsville, Providence Bay, Sunshine, Kitley, Scarboro, Montague, Hamilton, Paris, Haliburton, Cockburn Island, Beatrice, Otonabee, Lucknow, Peterboro, Lakefield, Stouffville, Owen Sound, Erasmus, Bloomfield, Knee Hill, Red Deer, Dawson, Muskowpetung, Qu'Appelle, Kingston, Bissett, Saugeen, Parry Sound, Toronto, Stratford, E. Beaver Hills.

23. Stony Mountain, Belmont (*hail*), Morden, Oak Bank, Arden, Sable Island, Otonabee, Hillview, Pipestone, Manor, Crane Lake, Alameda, Crescent Lake, Ottawa, Medicine Hat, Winnipeg, Yarmouth, Grand Manan, Minnedosa, Kingston, Quebec, Deloraine, *hail*.

24. Truro, Pembina Crossing, Norquay, Oakdale Park, Oak Bank, Lion's Head, Wolfville, Cockburn Island, Treherne, Hillview, Manor, Red Deer, Alameda, Halifax, Yarmouth, Grand Manan.

25. Coldwater, Pembina Crossing, Oak Bank, Regina, Dirt Hills, Providence Bay, Bermuda, Sable Island, Lucknow, Portage la Prairie, Bowsman, Hillview, Manor, Alameda, Muskowpetung, Qu'Appelle, Port Arthur, Minnedosa, Quebec, Deloraine, *hail*.

26. Pembina Crossing, Norquay, Clearspring, W. Beaver Hills, Georgetown, Hamilton, Bowsman, Crescent Lake, Winnipeg, Minnedosa.

27. Nanaimo, Haileybury, Sussex, Moncton, Dalhousie, Abitibi, Bowsman, Grand Manan, Quebec, Father Point.

28. Gravenhurst, Durham, Coldwater, St. Agathe des Monts, Pembina Crossing, Dirt Hills, Midland, Emsdale, Huntsville, Sunshine, Point Lepreaux, Sable Island, Chicoutimi, Kinmount, Haliburton, Otonabee, Erasmus, Aweme, Bowsman, Pipestone, Alameda, Crescent Lake, Yarmouth, Grand Manan, Quebec, Saugeen, Parry Sound, Stratford, Deloraine.

29. Norquay, Clearspring, Kitley, Point Escuminac, Sussex, Perce, Bowsman, Alameda, Tobacco Plains, Medicine Hat, White River, Yarmouth, Port Arthur, Quebec, Father Point.

30. Norquay, Regina, Sable Island, Paris, Manor, Alameda, Muskowpetung, Qu'Appelle, Deloraine.

FORECASTS FOR JUNE, 1901.

The forecasts issued by this office at 11 p m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of predictions issued during the month was 918. These were divided as follows:—

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Percentage
Manitoba	84	56	21	7	79·2
Lake Superior	101	77	18	6	85·1
Lower Lake Region	111	82	21	8	83·3
Georgian Bay	109	88	14	7	87·2
Ottawa Valley	100	84	10	6	89·0
Upper St. Lawrence	98	82	10	6	88·8
Lower St. Lawrence	97	71	18	8	82·5
Gulf	96	68	20	8	81·3
Maritime Provinces	122	85	27	10	80·7
Total	918	693	159	66	84·2

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART,
Director.

Meteorological Office, Toronto,
26th July, 1901.

METEOROLOGICAL SERVICE, DOMINION OF CANADA.

Monthly Weather Review.

VOL. XXV JULY, 1901. No. 7

OCT 1 1901 UNIVERSITY OF TORONTO

INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm signal agents. For the material used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

REMARKS UPON THE WEATHER.

The chief characteristics of the weather of July were somewhat low mean temperatures in British Columbia and the North-west Territories and unusually high mean temperatures elsewhere, also heavy precipitation in Ontario and the North-west Territories and generally light precipitation elsewhere. The proportion of bright sunshine was a little below the average in most districts. In some localities there were severe thunderstorms and loss of life was reported. Reports regarding the condition of vegetation were generally favourable but in some districts plant life was scorched by the great heat prevailing.

The weather in British Columbia did not depart much from the normal, but it was somewhat cooler and drier than usual and the proportion of bright sunshine was below the average. At a few places in the northern portion light frosts occurred doing some damage to vegetation, nevertheless the condition of plant life on the 31st was about average.

In the North-west Territories the weather was somewhat cooler than usual in western and northwestern districts but elsewhere the temperature did not depart much from the average. In most localities the precipitation was unusually heavy, but at some places it was average or slightly below, the chief excess being in Alberta and portions of Assinaboia. Severe thunderstorms occurred in most districts causing loss of life and much damage to property. The proportion of bright sunshine was a little below average. Maximum temperatures exceeding 90° only occurred at a few places but in most localities 85° to 90° were recorded. On the 31st the sloughs were full of water and vegetation was in excellent condition.

In Manitoba the weather was somewhat warmer than usual and in most localities the precipitation was slightly less than average. Clouded skies were rather frequent and the proportion of bright sunshine was below average. Thunderstorms were unusually frequent but little damage appears to have been caused thereby. The maximum temperatures at most places exceeded 90°, and at two stations 87° was recorded. Plant life generally was in good condition on the 31st.

The weather in Ontario was exceptionally warm, the mean temperature at many places exceeding that of any previous July since 1868 and the maximum temperatures, which at a few places reached 100°, were also unusually high. In nearly all districts the precipitation exceeded the average, much of the rain falling during thunderstorms. The proportion of bright sunshine, although above average in a few districts was generally below. In many places vegetation was scorched by the great heat and was also somewhat forced, nevertheless reports regarding the condition of plant life were generally favourable.

In the Province of Quebec the weather was rather warmer than usual excepting in the northwestern and extreme eastern portions where the temperature was normal. Throughout the greater portion of the province there was much drought, the rainfall nearly everywhere being below average. At most places the maximum temperatures were between 90° and 95°. The condition of vegetation was normal.

In New Brunswick the weather conditions were very similar to conditions in Quebec the temperature being generally above the average and the rainfall below. The maximum temperatures exceeded 90° at many places and at St. Stephen 95·2° was recorded on the 15th. Thunderstorms, although not more frequent than usual, were exceptionally severe causing much damage; and on the 16th a tornado occurred between Grand Falls and Aroostook when buildings were blown down and all crops in its path, which was about a mile in width, were destroyed. The proportion of bright sunshine was below average, nevertheless in most districts the condition of vegetation was normal.

In Nova Scotia the weather was warm and dry the temperature being generally above the average and the precipitation below. The maximum temperatures were generally between 80° and 90° and nowhere

exceeded the latter figure. No storms of importance were reported. Plant life was in average condition on the 31st.

In Prince Edward Island the weather was warm and dry but did not depart much from the normal. The highest temperature reported was 87·6° at Charlottetown on the 14th. Thunderstorms occurred at most places but no damage appears to have been caused thereby. The condition of vegetation was normal.—F. F. Payne.

ATMOSPHERIC PRESSURE.

Atmospheric pressure differed very little from the average in Canada. Over Manitaba and the Upper Lake Region it was from ·01 to ·02 of an inch above, also to the same extent in the Ottawa Valley but elsewhere over all the large remaining portions of the Dominion it was from ·01 of an inch to ·03 of an inch below average.

HIGH AREAS.

Six areas of high pressure were charted and they were of the usual feeble summer type.

No. 1 was a moderate area which between the 6th and 9th moved from the vicinity of Eastern Manitoba to the Atlantic. No. 2 appeared in Manitoba on the 9th whence it travelled over the Lake Superior Region to the Ottawa Valley and then southward and off the New England Coast. It was accompanied throughout its course by very fine weather. No. 3 was a feeble area which covered Manitoba on the 17th, and after reaching the Lower Lake Region on the 19th it dispersed. It was, however, attended by comparatively cool weather, and in Ontario and Quebec it brought a modification of the excessive heat which had been existing for a considerable period. No. 4 was a very moderate area which developed in the North-west on the 21st, and after reaching the Lower Lake Region on the 23rd it dispersed. No. 5 was situated in Saskatchewan on the 23rd whence it passed south-eastward to the northward of Lake Superior, and on the 26th it was centred in the Ottawa Valley. By the evening of the 27th it had passed off the New England Coast. The system was attended by cool weather throughout its course, the nights at the same time in far northern districts being very cool. No. 6 was situated on British Columbia Coast on the morning of the 28th, and by the night of the 31st it had reached Minnesota. It was of moderate energy but attended by very fine weather.

LOW AREAS.

Seven areas of low pressure were charted during the month and there were others of minor importance whose paths were so erratic that it was impossible to determine them with any degree of reasonable accuracy.

No. 1 was situated over Lake Superior on the morning of the 1st as a very shallow depression. It travelled with great rapidity to the Gulf of St. Lawrence where it developed considerable energy, the winds on the 2nd and 3rd increasing to very strong breezes and locally to moderate gales. It was also attended throughout its course by thunderstorms which appear to have been more general in Quebec than elsewhere. No. 2 was a fairly energetic depression. In its early stages it was marked by two foci; one travelled over the Western States, the other over the Territories and Manitoba; the two uniting on the 6th over Lake Superior. The system then moved south-eastward over the Lower Lake Region and thence to the Maritime Provinces. It caused numerous and heavy rainfalls for several days in the Territories and Manitoba and general heavy showers and thunderstorms, likewise covering a period of several days, in Ontario, Quebec, and the Maritime Provinces. No. 3 was a moderate depression which moved into the Gulf of St. Lawrence from the northward between the 10th and 11th, and caused some local showers and thunderstorms in Quebec and the Maritime Provinces. No. 4 was situated over the Northwestern and Western portions of the continent from the 6th until the 16th, its centre shifting continually, the course of the system being very much too erratic to be correctly traced. During this long interval the weather was almost continuously unsettled in the Territories and Manitoba, showers and thunderstorms were of frequent occurrence and some very heavy rainfalls were recorded in many localities. A series of shallow depressions developing and passing over Quebec and the Maritime Provinces between the 16th and 19th, caused numerous thunderstorms some being of unusual local violence, noticeably one in portions of New Brunswick on the 16th. No. 5 caused numerous showers and thunderstorms between the 18th and 20th, in the Territories and Manitoba, and it then passed over Lake Superior and the St. Lawrence Valley. As it moved into the Lower St. Lawrence Valley and the Gulf it became more energetic the winds at the same time increasing to strong breezes and moderate local gales. Its accompanying showers and thunderstorms were also widely experienced from Ontario to the Maritime Provinces. No. 6 hovered over the Western and Northwestern States from the 21st until the 25th, when there were many showers and thunderstorms in the Territories and Manitoba. Between the 25th and 26th it also caused rains over the greater portion of Ontario. No. 7 was seemingly situated in the Middle Pacific States on the 25th. Its path over the Northwest States was erratic; by the evening of the 29th, however, it had reached the Lower Lake Region, whence it traversed the Ottawa and St. Lawrence Valleys and passed into the Gulf of St. Lawrence during the 31st. The rain area accompanying this depression was unusually

widespread and pronounced. In the Territories and Manitoba during its presence showers and thunderstorms were of frequent occurrence. In Ontario and Western Quebec the most general heavy rainfall of the month was experienced, some of the amounts recorded being remarkable; among others may be mentioned Parry Sound 5·69 inches, Montreal 3·52 inches. In Eastern Quebec and the Maritime Provinces the rainfall was only heavy in a few isolated localities.

BRIGHT SUNSHINE.

Bright sunshine was slightly above average at Woodstock and Barrie in Ontario and at Fredericton in New Brunswick; at all the other sunshine recording stations in the Dominion it was slightly below the average. The plus and minus departures were, however, everywhere so small that the proportion of Bright Sunshine for the month may be considered to have been approximately about the average July amount.

WINDS.

On Vancouver Island and the Lower Mainland of British Columbia the wind direction was almost altogether between the south and west; strong breezes were only recorded on three or four occasions but very often during the daytime the force of a fresh breeze was attained.

In the North-west Territories and Manitoba no one direction was paramount, strong breezes were not of frequent occurrence, but on nineteen days the winds were fresh.

In the Lake Region the general direction on twelve days was westerly and on nine easterly, and variable for the remaining days of the month. The force of a strong breeze was very seldom reached but fresh winds were experienced on as many as sixteen days.

In the Lower St. Lawrence Valley and the Gulf the westerly was more often experienced than any other direction. On six days strong breezes were recorded when the force of a moderate gale was occasionally reached locally, and on sixteen days the winds were fresh.

In the Maritime Provinces the westerly direction was mostly in evidence on seventeen days and at other times the direction was generally variable. The force of a fresh breeze was only reached on seven occasions, the prevailing conditions being light to moderate breezes. No storm warnings were issued during the month.

TEMPERATURE.

The temperature was below the average from 1° to 3° in the western and north-western portions of the Territories, also over British Columbia, and above the average elsewhere throughout Canada, except in the extreme north-eastern portion of Quebec where the average was just maintained. In Toronto the mean for July of this year (73°), which is 6° above the average, has only been equalled once during the past sixty years, namely, in 1887, and only exceeded once, namely, in 1868, when a mean of 75° were recorded; consequently it is fair to assume that as over the greater portion of Ontario the mean was from 5° to 6° above average, July, 1901, in Ontario was one of the warmest Julys on record. The mean in Manitoba was also as much as 3° to 4° above the average, as was also the case in several portions of the Maritime Provinces.

The Highest and Lowest temperatures in each Province during July, 1901, were:

British Columbia,	98°·0 on 30th at Midway.	31°·0 on 1st at Cranbrook.
North-west Territories,	98°·0 on 12th at Muskowptung.	32°·1 on 15th at Banff.
Manitoba,	97°·0 on 12th at Aweme.	40°·0 on 1st at Bowsman.
Ontario,	101°·0 on 14th at Savanne.	33°·2 on 8th at White River.
Quebec,	96°·0 on 17th at Richmond.	38°·1 on 6th at Father Point.
New Brunswick,	95°·2 on 15th at St. Stephen.	36°·0 on 25th at Sussex.
Nova Scotia,	92°·8 on 15th at Halifax.	38°·0 on 25th at Truro.
Prince Edward Island.	87°·6 on 14th at Charlottetown.	47°·0 on 9th at Hamilton.

PRECIPITATION.

The rainfall was much below the average over the greater portion of Quebec and throughout the Maritime Provinces. In Manitoba and British Columbia it was for the most part just about the average, but in all the other portions, except in a few isolated localities, it was above the average, and in many localities, to a large amount. In Alberta, Edmonton reports the phenomenal rainfall of 11·1 inches, being no less than 8·1 inches above the average. E. Beaver Hills reports a fall of 13·8 inches; Strathcona 9·2 inches, and N. E. Beaver Hills 9·1 inches. Regina also records an abnormal rainfall of 8·3 inches, and Gatesgarth of 6·1 inches. In Ontario the rainfall was excessive in many districts, more especially in the Georgian Bay and Muskoka regions, where generally the waters of the small inland lakes were reported to be higher than they were at the spring freshets. Parry Sound recorded 7·9 inches, which is 5·3 inches above the average. The excessive rainfalls in these districts are more remarkable when it is considered that farther to the northward in the Temiscamingue and northern Ottawa River localities the country suffered from drouth and disastrous bush fires. In the Maritime Provinces, Chatham, N.B., was 2·7 inches below average, Halifax, 2·4 inches below, and Charlottetown, 2·3 inches below.

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JULY, 1901.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	Pressure. Mean reduced.	Pressure. Highest.	Pressure. Lowest.	Pressure. Range.	Temperature. Mean.	Temperature. Difference from average.	Temperature. Years observt.	Temperature. Highest.	Temperature. Date.	Temperature. Lowest.	Temperature. Date.	Temperature. Mean daily range.	Mean temperature of Dewpoint.	Mean relative Humidity.	Mean amount of Cloud, a mount of days completely clouded.	No. of days completely clouded.	Direction of Wind from N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	C.	Total number of hours.	Velocity of Wind. Mean miles per hour.	Highest day's velocity.	Date, and direction from.	Precipitation. Amount.	Difference from Average.	Heaviest fall in month.	Days with .01 or more.	No. of Fair days.	No. of Auroras.	No. of Thunderstorms.	No. of Fogs.
	° ′	° ′		in.	in.	in.		°	°		°		°		°	°																in.	in.	in.					
BRITISH COLUMBIA:																																					
Victoria	48 24	123 19	85	30 02	30 21	29 81	0 40	57 4	— 2 6	10	68 0	30	45 8	12	13 1	.....	.....	5	4	36	11	13	25	17	308	111	11	58	744	8·7	18 3	8 sw	0·19	—0·21	0·14	3	25	0	0	0
Barkerville	53 2	121 35	4180	29 90	30 18	29 64	0 54	51 9	— 3 1	13	72 0	28	36 0	1	24 6	.....	.....	7	7	0	0	0	0	3	2	0	0	57	62	.....	VI	5 s	3·38	—0·36	0·56	21	9	0	3	0
Agassiz	49 14	121 31	52	.....	.....	.....	.....	60 4	— 1·8	11	83 0	28	42 0	26	29 4	.....	.....	2	0	23	0	0	0	45	0	25	0	0	93	.....	.....	.....	1·25	—0·73	0·42	7	24	0	0	0
Fort Simpson	54 34	130 26	26	29·93	30 24	29·52	0·72	50 1	— 0·5	15	69 5	15	43 5	11	13 5	.....	89	9	16	3	1	0	4	17	3	3	1	61	98	.....	.....	.....	2·04	—3·71	0·54	15	18	0	0	28
Spence's Bridge	50 23	121 20	770	.....	.....	.....	.....	69 4	— 3 3	10	92 5	8	48 0	1	29 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R	—0·42	R	0·47	0	0	0	0
Hazelmere	49 3	122 43	.....	.....	.....	.....	.....	58 6	— 2·3	9	78 0	28	36 0	12	26 9	.....	.....	.....	.....	1	6	2	9	0	40	1	1	0	60	.....	.....	.....	1·23	—0·40	0·82	8	23	0	1	0
Revelstoke	51 0	118 6	1476	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kamloops	50 41	120 29	1193	29 87	30 16	29 55	0 61	67 1	— 1·6	9	93 0	30	44 0	12	28 3	.....	.....	5	4	0	0	2	3	5	4	10	7	31	62	.....	x	26 w	0·42	—1·19	0·18	7	23	0	0	0
Princeton	49 29	120 29	1650	.....	.....	.....	.....	61 9	—	7	90 0	30	32 0	12	34 2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·46	—	0·24	7	23	0	3	0
Pilot Bay	49 39	116 55	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rivers Inlet	51 39	127 19	20	30·03	30 30	29 64	0 66	55 7	—	7	79 4	28	42 2	7	13 6	52·3	88	7	10	0	0	0	4	0	4	34	0	51	93	I	III	2 w	6 60	—	1 17	17	13	0	0	2
Stuart's Lake	54 28	124 12	1800	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0 62	—0·26	0·34	7	24	0	0	0
French Creek	49 20	124 36	.....	.....	.....	.....	.....	57 5	— 3·9	9	74 0	31	41 0	12	21 1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Coldstream	50 14	119 15	1246	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nanaimo	49 10	123 57	.....	.....	.....	.....	.....	59 6	—	1	78 0	29	40 1	12	19 7	53 7	74	4	2	8	14	4	23	5	5	6	17	11	93	8 6	24 0	11 sw	0 32	—	0 13	7	24	0	1	0
Chilliwack	49 10	121 57	21	29·95	30 16	29 73	0 43	61 5	—	5	80 1	29	41 0	12	20 2	57 0	81	4	0	1	0	8	5	18	32	19	1	0	84	13·3	18 0	11 sw	1·42	—	0 65	8	23	0	1	1
Quatsino	50 32	128 3	.....	.....	.....	.....	.....	54 3	—	3	69 0	23	43 0	26	25 9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5·39	—	1 75	15	14	0	0	0
Midway	49 0	118 46	1800	.....	.....	.....	.....	64 5	—	1	96 0	30	30 0	20	40 8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·15	—	0 15	1	30	0	0	0
Enderby	50 32	119 7	1180	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nicola Lake	50 9	120 39	2120	.....	.....	.....	.....	59 6	—	6	81 0	30	37 0	12	22 9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 02	+0 43	0 21	8	25	0	5	0
West Kootenay	49 20	117 50	.....	.....	.....	.....	.....	65 3	—	6	86 0	30	46 0	1	22 8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 43	—	0 98	8	26	0	2	0
Garry Point	49 21	123 17	.....	.....	.....	.....	.....	58 3	—	6	74 0	31	40 0	12	18 9	.....	.....	.....	.....	1	10	26	6	17	4	16	8	5	93	7 6	16 0	11 s	0 90	—	0 22	6	25	0	0	0
Tobacco Plains	49 1	115 5	2300	.....	.....	.....	.....	62 2	—	6	93 1	31	31 0	21	34 2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0 92	—	0 55	4	27	0	2	0
Vancouver	49 17	123 5	195	.....	.....	.....	.....	60 7	—	2	79 9	23	44 0	7	19 3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0 83	—	0 24	7	24	0	0	0
New Westminster	49 13	122 54	330	30 03	30 19	29 82	0 37	59 5	—	8	75 5	29	40 5	12	19 9	.....	.....	5	7	0	0	13	0	12	15	1	0	21	62	.....	v	30 s	1·41	—	0 65	7	22	0	0	1
a Ladner	49 5	123 4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
N. Nicomen	49 12	122 2	59	.....	.....	.....	.....	61 3	— 3·5	9	81 0	29	40 0	12	22 6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0 82	—1 36	0 32	6	25	0	0	0
Quesnelle	52 59	122 30	1700	.....	.....	.....	.....	60 4	—	8	81 0	30	39 0	6	29 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2 21	—	0 82	13	18	0	0	0
Clayoquot	49 11	125 47	40	.....	.....	.....	.....	55 2	—	4	71 0	31	40 0	7	17 1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4 77	—	2 25	6	24	0	0	7
Cranbrook	49 30	115 50	.....	.....	.....	.....	.....	60 8	—	5	87 0	31	31 0	11	27 2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Massett	53 58	132 9	30	.....	.....	.....	.....	55 2	—	4	68 0	25	43 0	11	16 6	.....	.....	.....	.....	0	10	15	16	0	2	10	9	0	42	.....	.....	.....	4 30	—	0 75	12	19	0	0	0
Bullion	52 45	121 55	.....	.....	.....	.....	.....	57 4	—	5	83 0	30	36 0	28	27 6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 52	—	0 50	10	21	0	3	1
Bella Coola	52 20	126 54	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Duncan	48 45	123 42	40	.....	.....	.....	.....	60 1	— 3 3	12	83 0	29	35 0	13	27 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0 34	—0·41	0 21	2	29	0	0	0
Nelson	49 29	117 21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Coldstream Ranche	50 14	119 15	.....	.....	.....	.....	.....	66·2	—	6	89 0	29	38 0	12	32 9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0 50	—	0 35	2	29	0	0	0
Metsqui	49 7	122 10	.....	.....	.....	.....	.....	60 2	— 2·6	11	80 0	29	37 5	11	22 2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0 98	—0·39	0 36	9	22	0	0	0
Okanagan Mission	49 52	119 29	.....	.....	.....	.....	.....	44 3	—	2	91 5	31	30 0	12	29 1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0 53	—	0 33	3	28	0	0	0
Alberni	49 15	124 49	300	.....	.....	.....	.....	60 2	—	6	82 1	28	42 0	7	22 2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 37	—	0 44	11	17	0	1	0
Saturna Island	48 47	123 12	14	.....	.....	.....	.....	59 4	—	1	73 6	28	45 0	12	18 4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0 23	—	0 10	6	25	0	0	0
Kaslo	49 52	117 0	.....	.....	.....	.....	.....	65 3	—	3	87 0	23	46 0	3	25 3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 69	—	0 55	8	23	0	4	0
Cape Scott	.....	.....	.....	.....	.....	.....	.....	54 0	—	4	64 6	17	43 1	7	85	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4 91	—	1 64	23	8	0	0	0
N.-W. TERRITORIES:																																							
Medicine Hat	50 1	110 37	2161	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Edmonton	53 33	113 30	2158	29 84	30 05	29 54	0 51	60 9	+ 0·3	18	83 0	30	42 0	17	21 2	.....	.....	6	4	4	5	9	6	3	0	12	11	12	62	.....	12·0	12 w	11·1	+8·10	2·16	16	13	0	0	2
Swift Current	50 20	107 45	2439	29 83	30 07	29 54	0 53	57 5	+ 1·1	15	92 0	18	43 0	29	24 7	.....	.....	4	0	2	4	3	9	3	6	7	16	12	62	.....	22 7	2 NE	4·24	+1·85	1·40	12	18	0	4	0
Qu'Appelle	50 30	103 47	2115	29 83	30 06	29 52	0 54	66·2	+ 2·6	17	89 6	12	44 6	2	22 2	.....	.....	5	4	2	1	12	11	12	6	6	9	3	62	.....	22 9	20 NW	5·47	—2·99	1·28	16	14	0	15	2
Calgary	51 2	114 2	3389	29 84	30 06	29 53	0 53	58·9	— 1·6	17	80 0	6	37 0	1	26 7	.....	.....	4	5	2	6	5	8	0	3	15	15	8	62	.....	16 0	27 NW	3·90	+1·22	0 80	11	20	0	0	0
Prince Albert	53 10	106 0	1432	29 80	30 06	29 53	0 53	63·1	+ 1·3	16	86 0	11	44 5	2	21 0	.....	.....	6	8	0	3	5	1	2	2	3	4	44	62	.....	12 0	15 SW	4·49	—2·44	0 86	12	16	0	2	1
Battleford	52 41	108 20	1620	29 86	30 12	29 48	0 64	63·6	— 0·8	10	87 0	31	40 0	2	22 2	.....	.....	6	4	17	60	80	202	24	36	152	94	79	744	7 0	17 3	22 E	1·96	—0·38	0 23	11	15	0	6	0
Onikup	53 30	101 20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2 84	—	1 22	13	17	0	6	0
a Banff	51 10	115 35	4542	29 90	30 24	29 65	0 59	55 5	—	6	79 0	22	32 1	15	28 8	.....	.....	5	2	5	3	0	0	4	13	7	5	25	62	.....	VI	12 w	0 43	—0·12	0 12	7	23	0	1	0
Chaplin	50 27	106 40	2202	.....	.....	.....	.....	67 8	— 0·6	17	93 0	12	37 0	2	27 2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Moose Jaw	50 21	105 35	1745	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8·25	+7·28	1·60	11	17	0	0	0
Regina	50 27	104 37	1885	.....	.....	.....	.....	66·0	+ 0·8	17	91·0	13	41 0	30	22 3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Indian Head	50 28	103 40	1924	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cannington Manor	49 43	102 2	.....	.....	.....	.....	.....	65·8	—	7	90·0	11	39 0	1	23 1	.....	.....	.....	.....	1	6	4	18	7	2	7	3	14	62	.....	.....	.....	4 45	—	1·90	7	22	0	4	0

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PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, JULY, 1901

a. Barometer not reduced to Sea Level. •Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	Pressure. Mean reduced	Highest.	Lowest.	Range.	Temperature. Mean.	Difference from average.	Yearsobserv't.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of Dewpoint.	Mean relative Humidity.	Mean amount of Cloud.	No. of days completely clouded.	Direction of Wind from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of observations.	Velocity of Wind. Mean miles per hour.	Highest day's velocity.	Date and direction from	Precipitation. Amount.	Difference from Average.	Heaviest fall in month.	Days with .01 or more	No. of Fair days	No. of Auroras.	No. of Thund. storms	No. of Fogs.
	° ′	° ′		in.	in.	in.	in.	°	°		°		°																			in.	in.	in.					
ONTARIO—(*Continued.*)																																						
Windsor	42 20	83 4	....	....	....	....	....	75·1	+ 2·3	26	90·6	22	51·6	9	18·4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5·90	+2·85	1·49	10	15	0	0	0
Alton	43 51	80 5	1250	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
•Guelph	43 33	80 16	....	....	....	....	....	72·7	+ 5·0	14	94·2	2	50·2	9	21·9	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4·06	+1·84	1·63	8	20	0	2	6
•North Bruce	44 23	81 25	....	....	....	....	....	70·4	+ 4·6	13	99·0	1	55·0	7	—	....	....	....	....	6	2	13	17	9	27	16	3	0	93	....	....	....	3·12	+0·88	0·91	11	20	0	0	3
Collingwood	44 30	80 15	....	....	....	....	....	70·5	+ 3·4	10	96·0	2	53·0	26	13·4	....	....	....	....	1	2	0	7	0	3	0	18	0	31	....	....	....	3·11	+0·23	0·78	8	23	0	0	2
Cooksville	43 36	79 36	....	....	....	....	....	68·1	—	1	94·0	2	43·0	24	21·2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3·21	—	0·98	9	22	0	1	2
Dacklyn	44 28	80 36	1339	....	....	....	....	68·9	+ 2·9	18	94·0	1	53·0	8	15·5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3·16	+0·27	1·10	9	22	0	1	0
Whiteside	45 0	79 30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Spruce dale	45 30	79 40	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Orillia	44 34	79 24	....	....	....	....	....	69·6	+ 2·7	9	94·0	1	48·0	8	21·8	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4·89	+1·37	1·49	13	17	0	0	0
Coldwater	44 38	79 40	....	....	....	....	....	68·2	+ 1·3	15	95·3	1	40·5	9	24·4	....	....	....	....	0	2	1	15	1	2	14	10	17	62	....	....	....	6·09	+3·86	3·28	10	21	2	4	0
Beatrice	45 8	79 20	770	....	....	....	....	68·1	+ 3·7	25	91·5	1	47·0	8	23·0	....	....	....	....	5	2	4	9	7	7	3	17	39	93	I	III	31 NW	5·30	+2·45	3·18	10	21	0	4	1
Gravenhurst	44 54	79 20	....	....	....	....	....	70·3	+ 3·5	24	95·0	1	50·0	9	22·2	....	....	....	....	4	4	6	5	10	6	11	8	21	8	18	93	II	IV	31 W	4·06	+1·28	2·12	8	20	1	2	0
Haliburton	45 1	78 28	....	....	....	....	....	68·7	+ 3·4	13	97·0	17	45·0	12	26·6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5·75	+2·18	2·18	9	14	0	1	0
•Point Clark	44 5	81 44	595	....	....	....	....	71·0	+ 5·5	28	100·0	16	55·0	25	—	....	....	....	2	0	....	34	2	3	4	33	7	4	1	5	93	III	VI	31 N	1·23	—1·34	1·00	2	29	0	3	2
Birnam	43 2	81 55	....	....	....	....	....	74·0	+ 5·7	18	98·7	1	48·0	9	21·3	....	....	....	....	....	....	5	2	1	2	4	17	11	14	6	62	....	....	....	4·80	+2·00	1·15	8	23	0	8	0
London	42 59	81 13	808	29·95	30·23	29·65	0·58	74·1	+ 4·3	18	98·0	1	49·5	9	24·1	64·9	70	2	0	0	1	2	0	0	5	72	13	0	93	I	II	7 W	3·14	+0·38	0·54	13	16	0	3	0
Port Stanley	42 40	81 13	594	29·95	30·21	29·68	0·53	72·6	+ 4·1	27	89·2	18	50·0	9	19·8	....	....	4	2	41	104	68	122	68	132	128	75	6	744	7·0	19·5	24 SW	3·69	+0·65	1·90	8	20	9	5	3
Woodstock	43 8	80 47	980	29·94	30·27	29·73	0·54	72·2	+ 4·0	27	93·0	1	50·0	9	21·4	68·4	87	4	0	2	0	0	0	18	6	42	11	107	186	3·8	11·5	20 W	3·84	+1·27	1·25	10	20	0	0	1
Port Dover	42 47	80 13	635	....	....	....	....	74·7	+ 5·4	22	93·0	1	52·1	9	19·2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·50	—0·25	0·75	10	20	0	7	0
Pelee Island	41 50	82 38	....	....	....	....	....	74·1	— 0·1	22	85·0	22	58·5	9	7·5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4·41	—1·21	1·49	8	23	0	0	0
St. George	43 14	80 12	722	....	....	....	....	75·1	+ 5·9	17	92·0	17	55·0	9	16·6	....	....	4	4	3	17	5	0	0	0	67	1	0	93	....	....	....	1·80	—1·24	0·48	7	24	0	1	0
Paris	43 12	80 25	840	....	....	....	....	75·2	+ 5·7	11	98·7	1	49·0	9	24·9	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·54	+0·11	0·81	9	22	0	4	0
St. Mary's	43 15	81 11	1040	....	....	....	....	73·0	+ 5·6	12	95·0	1	50·0	9	20·6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·95	+0·68	1·00	8	22	0	4	0
•Biscotasing	47 3	82 8	....	....	....	....	....	64·7	—	7	97·0	15	48·0	9	—	....	....	....	....	13	15	11	9	27	4	7	4	3	93	....	....	....	1·01	—	1·00	1	30	0	1	0
Bloomfield	43 59	77 13	....	....	....	....	....	72·4	—	5	91·0	17	50·0	27	20·4	....	....	....	....	0	17	0	3	0	36	3	2	1	62	....	....	....	2·79	—	1·22	12	19	0	3	0
Calvio	46 15	78 48	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Agincourt	43 47	79 16	....	....	....	....	....	71·4	—	6	94·0	2	51·0	9	22·4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3·41	—	1·02	9	22	0	6	1
Pickering	43 50	79 4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Hamilton	43 16	79 54	303	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Port Hope	43 56	78 20	....	....	....	....	....	72·1	—	5	94·0	15	50·0	8	22·1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4·94	+2·56	2·08	12	19	0	4	0
Kinmount	44 45	78 38	....	....	....	....	....	69·5	—	4	96·0	16	41·0	13	27·5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4·19	—	1·71	9	22	0	2	0
Cockburn Island	45 57	83 18	610	....	....	....	....	65·6	—	4	94·0	2	44·0	13	23·6	....	....	....	....	8	1	6	15	5	6	12	6	3	62	....	....	....	7·92	—	3·67	12	19	0	4	3
Chatham	42 23	82 12	595	....	....	....	....	75·9	+ 5·7	14	97·5	1	51·0	9	23·1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·03	—0·77	0·65	8	25	0	0	0
Dalhousie Mills	45 20	74 29	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Meaford	44 37	80 37	....	....	....	....	....	70·0	—	3	98·0	1	50·0	9	17·7	....	....	....	....	6	1	5	3	0	14	15	6	12	62	....	....	....	3·35	—	1·24	8	23	1	5	0
Rutbven	42 3	82 41	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Listowel	43 44	80 58	....	....	....	....	....	71·9	....	6	95·0	1	50·0	12	21·2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5·08	....	1·44	9	22	0	0	0
Bruce Mines	46 18	83 55	....	....	....	....	....	67·0	—	3	91·0	16	47·0	8	21·3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5·92	—	2·02	10	21	0	4	1
Rat Portage	49 48	94 32	1102	....	....	....	....	68·5	—	2	89·7	14	48·7	9	16·7	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·91	—	0·96	7	24	0	3	0
Dunnville	42 54	79 39	....	....	....	....	....	72·2	—	2	92·0	1	54·0	8	19·3	....	....	....	....	0	6	1	0	2	8	5	0	7	29	....	....	....	0·69	—	0·71	4	24	0	3	0
•Heron Bay	48 40	87 10	....	....	....	....	....	62·8	+ 4·9	11	82·0	15	39·0	8	—	....	....	....	....	18	9	0	0	2	9	42	0	17	93	....	....	....	3·87	+2·03	1·20	7	24	0	0	1
Sturgeon Falls	46 16	79 54	....	....	....	....	....	67·5	—	2	93·0	15	46·0	19	22·0	58·3	62	....	....	3	26	0	4	5	20	14	4	5	81	....	....	....	1·28	—	0·82	5	24	1	1	0
QUEBEC:—																																						
Montreal	45 30	73 35	187	29·91	30·24	29·59	0·65	70·3	+ 1·4	27	93·7	16	53·7	25	16·2	....	68	....	....	37	148	142	22	22	46	242	80	5	744	11·6	23·6	15 W	5·27	+0·98	0·99	10	19	0	4	0
Richmond	45 40	72 8	435	....	....	....	....	68·3	+ 2·0	22	96·0	17	41·5	24	24·4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·53	—1·90	0·67	10	20	0	0	0
Brome	45 10	72 36	....	....	....	....	....	66·3	+ 1·0	21	92·0	16	40·0	25	19·1	....	....	4	6	23	6	12	3	16	16	16	2	0	93	....	....	....	2·15	—2·24	0·60	11	18	0	2	0
Quebec	46 48	71 13	296	29·90	30·21	29·55	0·66	67·6	+ 1·5	27	92·5	15	45·0	25	20·6	....	....	6	3	21	175	11	35	11	226	160	100	5	744	10·9	28·0	7 NE	3·45	—0·81	0·79	11	20	1	6	0
Chicoutimi	48 25	71 5	150	....	....	....	....	67·1	+ 3·6	17	90·6	15	42·1	27	25·4	....	....	6	0	0	21	0	8	0	39	0	22	3	93	II	V	3 NE	2·09	—2·51	0·74	10	21	0	4	2
Father Point	48 31	68 19	20	29·83	30·18	29·44	0·74	57·9	+ 0·4	24	78·7	17	38·1	6	17·8	....	....	6	5	4	0	6	0	1	8	35	2	6	62	....	28·0	31 SW	1·08	—1·96	0·33	8	21	0	3	1
Cape Chatte	49 6	66 45	....	....	....	....	....	61·4	+ 0·7	19	72·0	10	53·0	19	—	....	....	....	....	0	0	8	0	1	21	36	4	23	93	....	....	....	0·73	—2·27	0·35	3	28	1	3	2
Bicquette	48 25	68 53	....	....	....	....	....	53·6	— 1·0	19	67·0	29	42·0	7	—	....	....	....	....	2	11	0	0	1	26	27	16	0	93	....	....	....	1·80	—1·38	0·90	4	27	0	0	0
•Cape Magdalen	49 16	65 20	....	....	....	....	....	61·0	+ 0·9	19	70·0	9	50·0	7	—	....	....	....	....	1	3	4	3	17	2	1	47	13	93	....	....	....	1·15	—1·98	0·25	11	20	0	1	2
Anticosti, W. Pt	49 52	64 32	....	....	....	....	....	56·9	— 1·9	18	71·0	9	49·0	7	—	....	....	....	....	6	2	6	9	22	3	17	28	0	93	....	....	....	2·28	—1·13	0·45	12	19	0	0	5
Anticosti, S.W. Pt	49 24	63 35	30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Ahitibi	48 43	79 22	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
•Anticosti, E. Pt	49 6	61 42	....	....	....	....	....	66·8	—	6	92·0	15	44·0	4	15·8	....	....	5	2	12	2	1	1	14	2	20	6	35	93	I	IV	31 NW	0·86	—	0·43	5	26	0	1	0

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OBSERVATIONS AT STATIONS REPORTING RAIN, SNOW, WEATHER &c., DURING JULY, 1901.

STATIONS.	Rainfall.					Remarks.
	Amount in inches.	No. of Days '01 or Over.	No. of Fair Days.	Heaviest Fall in Month.	Date.	
	in.			in.		
British Columbia—						
Goldstream Lake	0·29	2	29	0·14	21	
Nanaimo	1·02	6	25	0·80	21	
Kuper Island	0·45	5	26	0·16	21	Not enough rain for vegetables.
Royal Oak	0·45	3	28	0·22	9	
Caulfields	0·82	8	23	0·21	20	
Coquitlam	1·28	7	24	0·48	21	
Port Essington	3·27	19	12	1·24	31	
Naas Harbour	3·02	17	14	0·62	21	Thunder, 28.
Vancouver	0·83	7	24	0·24	10	
N. W. Territories—						
Regina	7·56	17	14	1·49	11	Thunder, 11, 12, 13, 17, 19, 24, 27.
Innisfail	6·31	11	20	2·24	26	
Saltcoats	3·08	7	24	1·18	28	Thunder, 28.
Weyburn	3·82	16	15	1·35	13	Thunder, 3, 16, 17, 18, 24.
Strathcona	9·16	18	13	1·76	4	Thunder, 9, 10, 14, 17, 18, 22, 23, 31.
Calgary	6·38	9	22	2·01	25	Thunder, 25.
Stirling	0·36	.....	..	0·36	2	
Didsbury	3·83	7	24	1·21	2	
N.E. Beaver Hills	9·12	12	19	1·72	16	Thunder, 10, 16, 17, 18.
Dirt Hills	4·75	9	22	0·95	24	Thunder, 2, 10, 11, 12, 13, 15, 17, 19, 24, 25, 26, 27.
E. Beaver Hills	13·76	13	18	3·37	24	Thunder, 2, 4, 9, 16, 23, 24.
Manitoba—						
Pembina Crossing	1·88	5	23	0·73	4	Thunder, 2, 3, 4, 12, 13, 14, 19, 22, 28.
Morden	2·57	6	23	0·98	5	Thunder, 3, 4, 14.
Cartwright	2·52	8	23	1·41	4	Thunder, 2, 4, 12, 24, 28.
Oakbank	2·04	6	23	0·75	13	Thunder, 3, 13, 14, 19.
Belmont	0·44	8	23	0·12	14	Thunder, 2, 3, 4, 5, 13, 14, 22, 27, 28.
Deloraine	4·79	6	25	2·50	13	Thunder, 13.
Beaver	3·17	6	25	0·90	5	
Clearspring	2·30	5	24	1·22	3	Thunder, 3, 12, 14, 15, 18, 19, 22, 28.
Ontario—						
Westminster	4·08	9	22	0·84	16	
Princeton	3·01	8	23	1·26	29	Thunder, 2, 16, 24, 29.
Deer Park	3·00	11	20	0·88	6	
Lansdowne	3·65	5	26	1·50	28	Thunder, 1, 17.
Arden	4·59	10	21	1·88	30	Thunder, 2, 6, 18, 19, 21, 28, 29, 30.
Croydon	4·90	8	23	2·25	28	Thunder, 1, 17, 18, 21.
Cayuga	2·92	6	25	1·23	28	Thunder, 5, 16, 23, 24.
Goderich	2·75	5	26	1·00	29	
Midland	5·21	8	23	1·65	29	Thunder, 5, 20, 27: 28.
Jermyn	5·07	8	23	1·35	28	Thunder, 6, 16, 18, 26, 29.
Georgetown	6·86	16	13	2·19	28	Thunder, 2, 4, 5, 16, 21, 27, 27, 29.
Oliver's Ferry	4·20	9	22	1·20	28	
Watford	3·60	7	24	2·00	25	
Wooler	3·25	9	22	1·12	28	Thunder, 1, 4, 5, 16, 18, 24, 28.
Orangeville	4·69	9	22	1·52	29	
Scarboro'	3·26	9	20	1·02	28	Thunder, 4, 5, 27, 28, 29.
Wiarton	5·09	9	22	1·76	29	Thunder, 2, 4, 21, 27, 28.
Aurora	4·04	7	24	1·27	5	
Lion's Head	4·01	7	24	1·87	29	Thunder, 4, 5, 21.
Uxbridge	4·62	9	22	1·52	29	Thunder, 5.
Ursa	5·32	10	21	2·10	28	Thunder, 5, 16.
Mortague	3·21	4	27	1·50	28	
Parma	2·86	6	25	0·69	29	Thunder, 6, 19, 28.
Lynedoch	3·34	8	23	0·70	15	
Kitley	2·15	4	27	1·50	22	Thunder, 22, 29.
Providence Bay	5·89	14	17	3·05	28	Thunder, 1, 4, 5, 20, 28.
Wyoming	3·77	6	25	1·20	26	Thunder, 2, 5, 11, 16, 22, 26, 27.
Sunshine	2·86	9	22	0·90	6	Thunder, 2, 5, 6, 11, 20.
Dealtown	3·32	11	20	0·76	5	Thunder, 17, 27.
Elgin	4·47	7	24	1·20	6	Thunder, 6.
Dutton	5·44	5	24	3·10	16	Thunder, 16, 28.
Ennismore	2·10	3	28	0·80	6	
Westport	4·46	11	20	1·00	29	
Nottawasaga	3·40	7	24	0·80	28	
Emsdale	5·00	13	19	2·10	28	Thunder, 1, 5, 9, 17, 20, 27, 28.
Port Burwell	2·72	7	24	0·83	22	Thunder, 22.
Huntsville	5·79	10	21	2·32	28	Thunder, 1, 5, 17, 28.
New Brunswick—						
Point Escuminac	0·69	4	27	0·32	7	Thunder, 21.
Nova Scotia—						
Port Morien	1·55	6	25	0·55	24	

PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY DURING WHICH THE SUN WAS ABOVE THE HORIZON IN THE MONTH OF JULY, 1901.

	Hours Ending															
	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.
Victoria	0·00	0·33	0·54	0·58	0·61	0·64	0·69	0·68	0·70	0·69	0·67	0·62	0·56	0·56	0·32	0·00
Nanaimo	0·23	0·34	0·53	0·60	0·58	0·60	0·57	0·61	0·61	0·66	0·63	0·61	0·60	0·59	0·46	0·14
Agassiz	.....	.....	0·12	0·30	0·40	0·51	0·57	0·65	0·64	0·65	0·64	0·64	0·56	0·52	0·36	0·04
Battleford	0·44	0·60	0·65	0·73	0·69	0·71	0·68	0·65	0·62	0·55	0·47	0·47	0·54	0·47	0·36	0·10
Indian Head	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brandon	0·08	0·34	0·48	0·46	0·54	0·59	0·65	0·72	0·69	0·70	0·69	0·67	0·63	0·53	0·06	0·00
Winnipeg	0·10	0·49	0·56	0·57	0·58	0·60	0·56	0·61	0·64	0·66	0·69	0·69	0·68	0·69	0·55	0·08
Durham	.....	0·09	0·42	0·51	0·59	0·65	0·66	0·69	0·65	0·65	0·63	0·56	0·57	0·59	0·48	0·15
Woodstock	.....	0·14	0·54	0·70	0·74	0·78	0·79	0·77	0·76	0·77	0·77	0·75	0·72	0·63	0·50	0·08
Toronto	.....	0·18	0·46	0·58	0·63	0·71	0·72	0·75	0·75	0·72	0·66	0·68	0·64	0·62	0·54	0·09
Lindsay	S	0·24	0·36	0·51	0·62	0·65	0·69	0·71	0·64	0·65	0·65	0·63	0·52	0·51	0·47	0·24
Barrie	0·06	0·33	0·55	0·64	0·67	0·70	0·69	0·74	0·69	0·74	0·76	0·67	0·63	0·66	0·26	0·00
Kingston	.....	0·14	0·56	0·61	0·64	0·74	0·71	0·77	0·71	0·70	0·64	0·55	0·57	0·55	0·32	0·01
Ottawa	.....	0·22	0·44	0·55	0·59	0·66	0·69	0·64	0·66	0·65	0·62	0·62	0·67	0·62	0·30	0·00
Montreal	.....	0·09	0·36	0·57	0·59	0·66	0·73	0·69	0·74	0·71	0·71	0·66	0·56	0·41	0·18	0·00
Fredericton	0·27	0·49	0·63	0·73	0·71	0·66	0·68	0·69	0·67	0·73	0·65	0·61	0·60	0·52	0·23	0·01

	Victoria.	Nanaimo.	Agassiz.	Battleford.	Indian Head.	Brandon.	Winnipeg.	Durham.	Woodstock.	Toronto.	Lindsay.	Barrie.	Kingston.	Ottawa.	Montreal.	Fredericton.
Mean proportion for month (*Constant sunshine being 1.*)	0·52	0·52	0·42	0·56	.....	0·49	0·55	0·52	0·62	0·58	0·53	0·58	0·54	0·52	0·58	0·58
Difference from average	— 0·04	—	— 0·04	— 0·02	.....	— 0·07	— 0·02	— 0·01	+ 0·04	— 0·02	— 0·04	+ 0·02	— 0·04	— 0·02	— 0·01	+ 0·08
Maximum daily amount	0·86	0·95	0·84	0·98	.....	0·86	0·90	0·90	0·90	0·92	0·97	0·87	0·87	0·89	0·92	0·93
Date	7·29	7	14	30	.....	15	21	14	14	15	14	12	12	12	12	12–25
No. of days completely clouded	0	1	6	4	.....	2	2	6	1	1	3	3	3	2	2	2

Aurora recorded :—

Where the class of aurora is noted by the observer, it is given (I) being the brightest, (IV) the feeblest in brilliancy.

10. Gravenhurst, IV.

11. St. Agathe, I.; Sturgeon Falls, IV.; Coldwater, III.; Toronto, IV.; Pembina Crossing, II. Georgetown, III.; Perce, II.; Cape Chatte, IV.; Meaford, IV.; Savanne, Red Deer, II.; Aweme, III. Winnipeg, IV.; Quebec, III.; Channel Island, III.

12. Coldwater, I.; Red Deer, III.

17. Savanne.

18. Aweme, III.

19. Pembina Crossing, IV.

21. Pembina Crossing, II.; Savanne.
24. Channel Island.
25 Savanne.

Thunder recorded on :—

1. Chilliwack, Haileybury, Coldwater, Stony Mountain, Gravenhurst, Croydon, Providence Bay, Clontarf, Cockburn Island, Haliburton, Uplands, Owen Sound, Kaslo, N. Nicomen, Hazlemere, Nanaimo, Bissett, Kingston, Minnedosa, White River, Parry Sound.

2. Montreal, (2); Durham, St. Agathe, London, Toronto, Pembina Crossing, Kaslo, Cartwright, Strathcona, Dirt Hills, Princeton, Arden, Georgetown, Sunshine, Brome, Cape Chatte, Agincourt, Birnam, Port Dover, Paris, Erasmus, Brantford, Red Deer, Crane Lake, Alameda, Muskowpetung, West Kootenay, Princeton, Aweme, Barkerville, Banff, Qu'Appelle, Quebec, Macleod, Cape Magdalen, St. Mary's.

3. Stony Mountain, London, E. Beaver Hills, Pembina Crossing, Morden, Oakbank, Belmont, Weyburn, Perce, Dawson, Pincher Creek, Red Deer, Crane Lake, Qu'Appelle, Minnedosa, Port Arthur, Father Point.

4. Durham, Stratford, Lindsay, Toronto, Pembina Crossing, Hillview, Cartwright, Belmont, Georgetown, Wooler, Scarboro, Lion's Head, Providence Bay, Meaford, Port Hope, Agincourt, Port Dover, Otonabee, Lakefield, Peterboro, Muskowpetung, Qu'Appelle, St. Johns.

5. Durham, Stratford, Coldwater, Gravenhurst, Toronto, Belmont, Cayuga, Midland, Georgetown, Wooler, Scarboro, Wiarton, Lion's Head, Uxbridge, Ursa, Providence Bay, Wyoming, Sunshine, Ridgetown, Beatrice, Port Dover, Kinmount, Haliburton, Bloomfield, Lucknow, Otonabee, Lakefield, Rocklyn, Erasmus, Brantford, Parry Sound, Saugeen, St. Mary's.

6. Deseronto, Lindsay, Arden, Croydon, Jermyn, Aurora, Parma, Sunshine, Elgin, Clontarf, Bala, Stouffville, Welland, Peterboro, Kingston, Battleford, Guelph.

7. Montreal, Clontarf, Peterboro, Bowsman, Ottawa.

8. Banff.

9. E. Beaver Hills, Strathcona, Clontarf, Bruce Mines, Pincher Creek, Banff, White River.

10. St. Agathe, Summerside, Strathcona, N. E. Beaver Hills, Dirt Hills, Chicoutimi, Bullion, Cape Chatte, Ridgetown, Point Clark, Birnam, Lucknow, Bowsman, Grenfell, Muskowpetung, Battleford, Qu'Appelle, Saugeen, Quebec, Swift Current.

11. Stratford, Dirt Hills, Sunshine, Grenfell, Crane Lake, Gatesgarth, Port Stanley.

12. Pembina Crossing, Hillview, Cartwright, Regina, Weyburn, Dirt Hills, Bowsman, Grenfell, Gatesgarth, Alameda, Muskowpetung, Manor, Qu'Appelle, Swift Current.

13. Pembina Crossing, Oakbank, Belmont, Deloraine, Regina, Dirt Hills, Manor, Bowsman, Moosomin, Gatesgarth, Alameda (*hail*), Muskowpetung, Chaplin, Princeton, Aweme, Minnedosa, Winnipeg.

14. Wolfville, Pembina Crossing, Morden, Hillview, Oakbank, Belmont, Strathcona, Paris, Rat Portage Moosomin, Battleford, Qu'Appelle, Minnedosa.

15. Fredericton, Truro, Wolfville, Bridgetown, Point Lepreaux, Dirt Hills, Chicoutimi, Abitibi, Qu'Appelle, Port Arthur, Quebec, Halifax.

16. Fredericton, Haileybury, Stratford, Bathurst, Lindsay, Truro, E. Beaver Hills, N. E. Beaver Hills, Dalhousie, Moncton, Wolfville, Pictou, Sussex, Toronto, Weyburn, Strathcona, Percé, Princeton, Cayuga, Jermyn, Georgetown, Ursa, Wyoming, Dutton, Dunnville, Port Hope, Agincourt, Birnam, Port Dover, Paris, Welland, Brantford, Red Deer, Alameda, Muskowpetung, Port Stanley, Quebec, Father Point, St. Mary's, Guelph.

17. Montreal, Truro, Toronto, Regina, Weyburn, Strathcona, N. E. Beaver Hills (*hail*), Dirt Hills, Lansdowne, Croydon, Dealtown, Chicoutimi, Agincourt, Port Dover, Pipeston, Bowsman, Muskowpetung, Charlottetown, Battleford, Qu'Appelle, White River, Ottawa, Yarmouth, Swift Current.

18. Montreal, St. Agathe, Haileybury, Bathurst, Deseronto, Weyburn, Strathcona, N. E. Beaver Hills, Arden, Croydon, Jermyn, Wooler, Percé, Rat Portage, Otonabee, Peterboro, Bowsman, Alameda, Manor, Kaslo, Barkerville, Bissett, Qu'Appelle, Sherbrooke. Quebec, Yarmouth.

19. Stony Mountain, Pembina Crossing, Oakbank, Regina, Dirt Hills, Parma, Treherne, Bowsman, Red Deer, Aweme, Prince Albert, Sable Island.

20. Haileybury, Sturgeon Falls (*hail*), Hillview, Midland, Providence Bay, Clontarf, Cockburn Island, Beatrice, Bruce Mines, St. George, Upland, Bissett, Banff, Battleford, White River, Port Arthur, Bermuda.

21. Durham, St. Agathe, Coldwater, Bathurst, Lindsay, London, Moncton, Toronto, Arden, Croydon, Georgetown, Wiarton, Point Escuminac, Percé, Chicoutimi, Cape Chatte, Dunnville, Stouffville, Meaford, Agincourt, Birnam, Port Dover, Rocklyn, Welland, Erasmus, Pipestone, Kingston, Saugeen, Quebec, Father Point, St. Mary's.

22. Stratford, Bathurst, Stony Mountain, Truro, Summerside, Pictou, Toronto, Brome, Pembina Crossing, Hillview, Belmont, Strathcona, Westminster, Kitley, Wyoming, Dunnville, Rat Portage, Birnam, Paris, Lucknow, Welland, Brantford, Red Deer, Aweme, Charlottetown, Port Stanley, Yarmouth.

23. E. Beaver Hills, Strathcona, Cayuga, Red Deer, Battleford, Prince Albert.

24. E. Beaver Hills, Toronto, Cartwright, Regina, Weyburn, Dirt Hills, Princeton, Cayuga, Red Deer, Crane Lake, Gatesgarth, Muskowpetung, Qu'Appelle, White River, Port Arthur.

25. Calgary, Dirt Hills, Point Clark, Red Deer, Gatesgarth, Muskowpetung, Tobacco Plains, Qu'Appelle.

26. Dirt Hills, Wyoming, Point Clark, Birnam, Crane Lake, Gatesgarth, Muskowpetung, Kaslo, West Kootenay, Banff, Qu'Appelle, Port Stanley, Swift Current, Channel Island.

27. Durham, Pictou, Hillview, Belmont, Regina, Dirt Hills, Midland, Georgetown, Scarboro, Wiarton, Wyoming, Dealtown, Ridgetown, Clontarf, Cockburn Island, Banff, Meaford, Bruce Mines, Port Hope, Agincourt, Rocklyn, Owen Sound, Alameda, Muskowpetung, Qu'Appelle, Parry Sound.

28. Stratford, Coldwater, Deseronto, Lindsay, Toronto, Pembina Crossing, Hillview, Cartwright, Belmont, Saltcoats, Arden, Midland, Georgetown, Wooler, Scarboro, Wiarton, Parma, Providence Bay, Dutton, Stony Creek, Ridgetown, Dunnville, Stouffville, Meaford, Bruce Mines, Port Dover, Kinmount, Haliburton, Bloomfield, Otonabee, Lakefield, Welland, Uplands, Erasmus, Peterboro, Brantford, Pipestone, Alameda, Muskowpetung, Aweme, Barkerville, Qu'Appelle, Minnedosa.

29. Deseronto, Lindsay, Toronto, Princeton, Arden, Jermyn, Georgetown, Scarboro, Kitley, Stony Creek, Ridgetown, Stouffville, Paris, Haliburton, Bloomfield, Otonabee, Lakefield, Welland, Peterboro, Port Stanley, St. John's

30. Arden, Paris, Otonabee, Lakefield, Peterboro.

31. Truro, Wolfville, Strathcona, Otonabee, Peterboro, Gatesgarth, Alameda, Manor.

FORECASTS FOR JULY, 1901.

The forecasts issued by this office at 11 p m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of predictions issued during the month was 1144. These were divided as follows:—

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Percentage
Manitoba	84	56	19	9	78 0
Lake Superior	114	83	19	12	81·1
Lower Lake Region	128	101	22	5	87·5
Georgian Bay	127	93	19	15	80 7
Ottawa Valley	114	92	13	9	86·4
Upper St. Lawrence	114	90	17	7	86 4
Lower St. Lawrence	112	87	17	8	85·3
Gulf	115	88	18	9	84 3
Maritime Provinces, West	117	87	15	15	80 8
Maritime Provinces, East	119	84	16	19	77·3
Total	1,144	861	175	108	82·9

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART,
Director.

Meteorological Office, Toronto,
26th August, 1901.

METEOROLOGICAL SERVICE, DOMINION OF CANADA.

Monthly Weather Review.

VOL. XXV AUGUST, 1901. No. 8

INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm signal agents. For the material used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

REMARKS UPON THE WEATHER.

The weather of August was characterized by high mean temperature in the Peninsula of Ontario and in the larger portion of the Maritime Provinces and by a somewhat lower average mean temperature than usual in the Province of Quebec and over the greater part of Northern Canada. The rainfall was generally much below the average except in Ontario and the western portion of Quebec. In Ontario, however, it varied greatly with the district, this was owing chiefly to the effect of local thunderstorms, excessive and deficient amounts occurring in contiguous districts. The proportion of bright sunshine was everywhere above the average, except in Ontario, where in most localities it was somewhat below. Slight frosts occurred in the North-west Territories and in the far northern localities of Ontario but no material injury was caused thereby to vegetation or crops. In Eastern Quebec and in many districts in the Maritime Provinces some damage was occasioned by drought, but on the other hand in Manitoba the largest wheat crop in the history of the Province was obtained under most favourable weather conditions.

In British Columbia the weather was fine and very dry, many localities suffered from drought and bush fire smoke was reported all the month. Some great temperature variations were recorded; at Armstrong it ranged from 90° to 36° in twenty six hours. The grain crops were reported generally good but roots backward on account of the long period of dry weather.

In the North-west Territories the temperature did not vary much from the average, in northern localities it was generally a little below and in southern slightly above. The weather throughout was most favourable for the crops; a light frost, however, occurred in the North Saskatchewan Valley on the 23rd but only touched garden stuff, and there were one or two local hailstorms which did some damage. The hay crop is reported to have been unusually good in all localities. The wheat was fairly generally cut by the end of the month giving an excellent yield and the stock on the ranches was said to be in fine condition.

In Manitoba the weather was also favourable for the crops and harvesting. No damaging frosts occurred and the thunderstorms which were experienced were few and widely scattered. By the end of the month the wheat harvesting was pretty well finished and probably by far the largest crop in the history of the country had been cut.

In Ontario the weather varied considerably with the district. A high mean temperature was recorded in all parts of the Province except in the extreme eastern and north-eastern portions, where the normal temperature was barely reached. The rainfall was also unevenly distributed, some few districts suffering from drought and others from a superabundance of rain. Sunshine was generally deficient and harvesting was somewhat interfered with by wet weather, this combined with the ravages of the Hessian Fly and other pests made the average wheat yield disappointing. Apples have proved almost a complete failure, also peaches in many localities, but other fruits have been a fair crop. Pasture lands were reported in good condition and the outlook for the corn and root crops favourable.

In the Province of Quebec the mean temperature was not as high as usual. The rainfall exceeded the average considerably in the western portion and was correspondingly below it in the eastern portions. Taking the Province as a whole, however, the month was unusually fine; grain is reported good and vegetables very fine.

In the Maritime Provinces the weather throughout was very fine and dry with the mean temperature from 1° to 3° above the average; no gales were recorded but many localities suffered a good deal from drought. In New Brunswick streams and ponds were reported lower than they have been for several years and crops short in nearly all localities; forest fires also caused much destruction.

In Nova Scotia grain and roots looked well at the end of the month and the fruit crop was an average one. In Prince Edward Island harvesting was almost completed at the end of the month ; the wheat was fine, clear, well headed and most abundant, especially in Queens and Kings counties. Potatoes excellent in quality and an average crop generally, pasturage withered and scant in some sections, good average root crop anticipated. Straw fully one third less bulk than average.

ATMOSPHERIC PRESSURE.

Atmospheric pressure was above the average in all portions of Canada. In the Lake Region it was from ·01 to ·03 of an inch above and elsewhere from ·05 to ·10 of an inch above. The Rocky Mountain regions and the Maritime Provinces shewed the largest positive departures.

LOW AREAS.

Nine areas of depression were charted during the month. No. 5 appears to have caused gales in the Gulf of St. Lawrence and No. 6 was of West India type but dispersed before reaching Canada.

No. 1 was a moderate depression which was centred in western Dakota on the morning of the 1st, whence it passed over the Lower Lake Region and down the St. Lawrence valley to the Gulf. In Ontario on the 2nd and in Quebec and the Maritime Provinces on the 3rd, it brought showers and thunderstorms to nearly all localities. No. 2 was another very moderate depression. It caused showers and thunderstorms at a good many points in the Territories and Manitoba between the 4th and 6th, and then passed far north over Canada joining No. 3 in the St. Lawrence Valley on the night of the 7th. No. 3 was a shallow low area, situated in Eastern Texas on the 5th. On the 7th it passed into the eastern portion of Ontario, bringing heavy rains over Lake Ontario and the eastern part of the Province as well as in all parts of Quebec. In the Maritime Provinces it also caused general showers but no very heavy rains. No. 4 was situated in Northern British Columbia on the 7th. During the 8th it travelled over the North-west States, thence into the Lake Region, the St. Lawrence Valley and the Maritime Provinces. It caused showers and thunderstorms in all parts of Canada, the heaviest rainfalls seemingly occurring in the Ottawa Valley and in Western Quebec. No. 5 was situated in the Territories and Manitoba from the 9th until the 12th, accompanied by occasional scattered showers and thunderstorms. On the 13th it was transferred to the Lake Superior district, where it caused numerous showers until the night of the 14th. Afterwards as it passed over the country to the Gulf of St. Lawrence, showers and thunderstorms were quite general in Ontario, Quebec and the Maritime Provinces between the 15th and 16th, and at the same time the winds increased locally to gales in the Gulf of St. Lawrence. No. 6 was of the West India type of areas. It travelled slowly north-westward until it reached the Louisiana coast on the 14th. It then passed up the Mississippi Valley and dispersed. It caused a severe storm in the Gulf of Mexico, and on the 19th and 20th its accompanying rain area spread into Ontario and east as far as Western Quebec. No. 7 was centred in Alberta on the 16th as a well marked depression, but after reaching Manitoba on the 17th it dispersed. It was attended by a few scattered showers and thunderstorms. No. 8 was a very moderate depression which was situated in the Rocky Mountain districts on the 18th and reached the Gulf of St. Lawrence on the 24th. As it passed over Canada showers and thunderstorms were fairly general, the heaviest rainfalls seemingly occurring in Ontario and Western Quebec. No. 9 was also a very moderate depression. It was situated in the North-west Territories between the 25th and 27th, and reached the Lower Lake Region on the 30th. It was accompanied by scattered showers and thunderstorms from the Rockies to Manitoba and by some decidedly heavy rainfalls and thunderstorms in Ontario and western Quebec.

HIGH AREAS.

Eight areas of high pressure were sufficiently well marked to be charted, a large number for the season of the year, and their tracks were almost entirely from North-western Canada across the Dominion to the Atlantic.

No. 1 which was situated in British Columbia on the morning of the 1st, afterwards passed slowly across the continent, reaching the Maritime Provinces on the 6th, being accompanied throughout its course by a period of very fine weather. No. 2 was an area of but little energy which travelled between the 6th and 9th from the North-west Territories to the Lower Lake Region and then dispersed. It was, however, attended by very fine weather. No. 3 seemingly formed in the Western States on the 10th and then spread into Canada, attaining to its greatest proportions when over the Maritime Provinces on the 12th. No. 4 developed in the Ottawa Valley during the night of the 17th and on the 19th it passed off the Nova Scotian Coast. Its presence was marked by very fine weather in Quebec and the Maritime Provinces. No. 5 was situated in Alberta on the 18th, whence it travelled slowly over Lake Superior and far north to the Lower St. Lawrence Valley, thence southward and off the Nova Scotian Coast. It was more pronounced when over the Maritime Provinces, but throughout it was a very moderate area. No. 6 moved between the 22nd and 25th from the North Saskatchewan Valley to the Lower Lake Region and then became merged in No. 7. It was not a very energetic area

but was accompanied by fine weather. No. 7 was also a moderate area. On the 25th it was situated in the North-west Territories and by the 28th it had reached the Maritime Provinces. No. 8 developed in the North-west Territories during the night of the 27th, its course was far north over Canada and it was about the most pronounced area of the month. On the night of the 30th during its presence, sharp frosts occurred in parts of the Lake Superior district.

BRIGHT SUNSHINE.

Bright sunshine was below the average over the larger portion of Ontario, but elsewhere in Canada it appears to have been everywhere above the average. The chief deficiencies were recorded at Lindsay and Toronto, and the chief excesses at Battleford and Victoria. The duration of the possible amount ranged from 0·46 per cent at Kingston to 0.75 per cent at Battleford.

WINDS.

In British Columbia, on Vancouver Island and the Lower Mainland the direction was almost entirely between the south and west and the force was usually from light to moderate, a fresh breeze seldom occurred and on only one occasion was a strong wind experienced.

In the North-west Territories and Manitoba the westerly was more frequently recorded than any other direction, however there were many days when it was variable; the wind mileage was by no means excessive for this part of the Dominion, strong breezes were seldom experienced but fresh winds often occurred.

In the Lake Region no one direction was paramount, the conditions being variable. Fresh breezes were recorded on eleven and strong winds on four days, at other times the winds were from moderate to calm.

In the Lower St. Lawrence Valley and the Gulf, the westerly was oftener recorded than any other direction. On nine days the force of a strong breeze was experienced increasing to local gales between the 16th and 18th. Fresh breezes were also recorded on six days and on the other sixteen days the winds were from light to moderate.

In the Maritime Provinces the winds were mostly light to moderate and variable. On eight days the force of a fresh breeze was recorded and only once was a strong breeze generally experienced.

No storm warnings were issued during the month.

TEMPERATURE.

The temperature was from 1 to 4 degrees above average over Ontario, except in the more eastern and northern portions, also to the same amount over a large portion of Nova Scotia and in Prince Edward Island. In British Columbia and Alberta it was just above average, whilst throughout Quebec and all the remaining portions of Canada it was from average to 2 degrees below.

The Highest and Lowest temperatures in each Province during August, 1901, were:

British Columbia,	102°·5 on 15th at Midway.	30°·0 on 17th at Barkerville.
North-west Territories,	95°·0 on 26th at Gatesgarth.	26°·5 on 23rd at Saskatoon.
Manitoba,	99°·5 on 16th at Aweme.	28°·0 on 23rd at Bowsman.
Ontario,	97°·0 on 14th at Sarnia.	26°·0 on 31st at White River.
Quebec,	91°·0 on 23rd at Roberval.	40°·0 on 19th at Brome.
New Brunswick,	93°·0 on 29th at Bathurst.	40°·0 on 19th at Sussex.
Nova Scotia,	87°·0 on 30th at Port Hastings.	37°·8 on 22nd at Truro.
Prince Edward Island.	83°·6 on 7th at Charlottetown.	47°·0 on 22nd at Charlottetown.

PRECIPITATION.

The rainfall was largely below the average over British Columbia and throughout the Dominion as far east and including the Lake Superior Region, also in Eastern Quebec and all parts of the Maritime Provinces. Over Western Quebec, on the other hand, the average was exceeded by an inch to an inch and a half. In Ontario, south of the Ottawa River,and including the Georgian Bay and Lower Lake Region, the distribution of rain was in many respects remarkable, excessive and deficient amounts occurring in contiguous districts owing to local thunderstorms. Along the north shore of Lake Erie and the west and south shores of Lake Huron there was very little rain during the month; less than half an inch in some localities. In Peterboro', Northumberland, Hastings and Prince Edward Counties the rainfall was also very light, but elsewhere there was, as a rule, a considerable quantity. The chief deficiencies reported in Canada were: Barkerville, 2·2 inches; Edmonton, 2·6 inches; Manitoba, 1·4 to 1·8 inches; White River, 2·1 inches; Chatham, N.B., 2·3 inches; Sydney, 2.0 inches; and the chief excesses, Woodstock, Ont., 3·2 inches; Orangeville, Ont., 3·5 inches; Aurora, Ont., 2·6 inches.

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, AUGUST, 1901

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	Pressure. Mean reduced.	Highest.	Lowest.	Range.	Temperature. Mean.	Difference from average.	Years observed.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of Dewpoint.	Mean relative Humidity.	Mean amount of Cloud	No. of days completely clouded.	Direction of Wind from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of hours.	Velocity of Wind. Mean miles per hour.	Highest day's velocity.	Date and direction from.	Precipitation. Amount.	Difference from Average.	Heaviest fall in month.	Days with .01 or more	No. of Fair days.	No. of Auroras.	No. of Thunder storms.	No. of Fogs.
	° ′	° ′	′	in.	in.	in.	in.	°	°		°		°		°	°																in.	in.	in.						
BRITISH COLUMBIA:																																								
Victoria	48 28	123 19	85	30 02	30 19	29 81	0 38	61 0	+ 1 2	10	79 2	15	48 2	20	17 2			2	1	38	21	19	51	185	232	50	6	142	744	5 3	13 3	26 SW	0 00	— 0 66	0 00	0	31	0	0	0
Barkerville	53 2	121 35	4180	29 96	30 30	29 56	0 74	56 2	+ 0 3	13	82 0	15	30 0	17	31 7			3	3	0	0	0	0	2	3	1	1	53	62		10 0	16 W	0 94	— 2 16	0 22	6	25	0	1	0
Agassiz	49 14	121 51	62					64 7	+ 1 1	11	91 0	21	45 0	1	33 8			1	0	42	0	0	0	30	0	21	0	0	93				0 61	— 2 10	0 91	0	31	0	0	0
Port Simpson	54 34	130 26	26	30 01	30 28	29 57	0 71	57 2	+ 0 3	14	71 0	23	44 0	18	11 8	55 7	93	7	14	0	0	0	13	6	5	11	4	54	93	1	9 SE		11 66	— 4 99	3 46	13	18	0	0	12
Spence's Bridge	50 23	121 20	770																																					
Hazelmere	49 3	122 43																																						
Revelstoke	51 0	118 6	1476																																					
Kamloops	50 41	120 29	1193	29 90	30 24	29 54	0 70	72 0	—	7	98 5	17	45 8	18	32 7					0	0	1	2	1	3	9	5	41	62		10 0	16 SW	0 00	— 0 66	0 00	0	31	0	0	0
Princeton	49 29	120 29	1650					65 2	—	7	95 0	15	40 0	18	39 7																				0 05	— 0 63	2 27	0	3	0	0	
Pilot Bay	49 39	116 55																																						
Rivers Inlet	51 39	127 19	20	30 09	30 32	29 73	0 59	58 3	—	7	78 7	15	43 9	17	14 6	55 3	87	4	7	0	0	3	0	0	0	34	0	56	93	1	IV	15 W	3 43	— 1 61	5 25	0	0			
Stuart's Lake	54 28	124 12	1800					50 9	—	8	82 0	30	25 0	20	35 6																				0 15	— 0 15	1 30	0	0	0	0	
French Creek	49 20	124 36						61 1	—	9	84 0	15	42 0	20	27 6																				0 36	— 0 36	1 30	0	0	0	0	
Coldstream Ranche	50 14	119 15	1246					70 4	—	7	97 0	15	45 0	6	35 3																				0 12	— 0 11	2 29	0	0	0	0	
Nanaimo	49 10	123 57						65 3	—	1	88 7	15	44 9	29	22 5	55 6	66	3	2	5	5	16	15	0	1	7	30	14	93	8 8	26 7	13 NW	0 23	— 0 23	1 28	0	1	0		
Chilliwack	49 09	121 57	21	29 26	30 14	29 75	0 39	63 5	—	4	88 0	14	43 0	21	26 2	58 5	82	3	5	2	1	6	2	38	27	12	1	0	89	11 8	15 0	6 E	0 04	— 0 63	2 29	0	0	0	0	6
Quatsino	50 32	128 3						59 2	—	4	77 0	24	42 0	1	35 0																				0 22	— 0 50	2 27	0	0	0	0	
Midway	49 0	118 46	1800					65 5	—	7	102 5	15	34 0	31	46 9																				0 41	— 0 16	3 28	0	0	0	0	
Enderby	50 32	119 7	1180																																					
Nicola Lake	50 9	120 39	2120					64 7	—	6	88 0	16	41 5	18	30 2																				0 03	— 0 57	0 03	1	29	0	0	0
West Kootenay	49 20	117 50						65 4	—	6	84 0	5	43 0	28	25 4																				0 17	— 0 16	2 29	0	3	0	0	
Garry Point	49 24	123 17						60 2	—	6	79 0	6	42 0	21	19 0					0	0	22	5	8	0	8	39	11	93	8 9	21 3	13 NW	0 05	— 0 05	1 30	0	0	0	5	
Tobacco Plains	49 21	115 5	2390					64 4	—	6	96 1	16	37 0	29	38 1																				0 14	— 0 11	2 29	0	0	0	0	
Vancouver	49 17	123 5	195					62 5	—	3	83 0	6	46 0	18	23 2																				0 22	— 0 39	1 30	0	0	0	3	
New Westminster	49 13	122 54	330	30 02	30 30	29 68	0 53	63 3	—	8	84 1	14	46 4	10	23 4			2	5	0	0	4	0	9	24	1	0	24	62		V	4 SW	0 20	— 0 15	2 28	0	0	0	0	
a Ladner	49 5	123 4																																						
N. Nicomen	49 12	122 2	59					65 0	—	9	90 0	14	48 0	10	26 7																				0 05	— 1 93	0 05	1	29	0	0	3
Quesnelle	52 59	122 30	1700																																					
Clayoquot	49 11	125 47	40					58 7	—	3	82 0	17	44 0	18	19 7																				1 52	— 1 24	3 28	0	0	0	12	
Cranbrook	49 30	115 5						68 5	—	1	94 0	17	33 0	14	32 6																				0 00	— 0 63	0 31	0	1	0	0	
Massett	53 58	132 9	30					58 1	—	4	70 0	23	47 0	31	17 3						5	8	1	15	0	2	27	4	0	62				2 75	— 0 35	14 17	0	0	0	0	
Bullion	52 45	121 55						60 5	—	5	87 0	15	32 0	1	36 1																				0 53	— 0 16	7 24	0	0	0	1	
Bella Coola	52 20	126 54	150																																					
Duncan	48 45	123 42	40					62 1	0 00	12	91 0	14	38 0	19	37 2																				0 31	— 0 48	0 18	2 29	0	0	0	
Nelson	49 29	117 21																																						
Okanagan Mission	49 52	119 29						67 5	—	2	93 0	16	42 0	17	34 7																				0 00	— 0 00	0 31	0	0	0	0	
Matsqui	49 7	122 16						62 6	— 0 2	11	88 0	6	44 0	8	27 5																				0 09	— 1 46	0 09	2	29	0	0	0
Rossland	49 6	117 40	3400																																					
Alberni	49 15	124 49	300					66 5	—	6	95 3	14	39 9	2	34 8																				0 42	— 0 42	1 28	0	0	0	0	
Saturna Island	48 47	123 12	14					62 1	—	1	82 0	14	48 0	21	18 6																				0 09	— 0 10	0 31	0	0	0	0	
Kaslo	49 52	117 0						67 2	—	3	89 0	14	50 0	11	26 6																				0 56	— 0 34	4 25	0	3	0	0	
Cape Scott	50 48	128 27						55 6	—	2	69 3	30	39 6	21	11 0																				3 27	— 1 07	14 15	0	0	0	0	
N.-W. TERRITORIES:																																							
Medicine Hat	50 1	110 37	2161																																					
Edmonton	53 33	113 30	2158	29 92	30 27	29 38	0 89	61 4	+ 2 5	18	85 0	15	38 0	7	27 5			3	5	2	1	3	2	7	6	17	6	18	62		9 3	13 W	0 72	— 0 41	0 42	4	27	0	0	0
Swift Current	50 20	107 45	2439	29 95	30 38	29 55	0 83	65 7	+ 1 9	15	91 0	15	38 0	7	28 7			4	1	0	4	9	3	7	8	6	14	11	62		15 3	17 NW	0 56	— 1 35	0 28	6	24	0	2	0
Qu'Appelle	50 30	103 47	2115	29 93	30 36	29 50	0 86	63 3	+ 1 9	18	90 0	26	38 6	7	26 7			4	3	1	4	4	8	8	9	9	13	6	62		13 3	1 NW	0 77	— 0 87	0 46	5	24	0	2	1
Calgary	51 2	114 2	3389	29 96	30 28	29 40	0 88	59 3	+ 0 2	17	85 0	16	35 0	18	29 4			4	2	4	4	4	11	3	0	19	6	11	62		24 0	5 N	0 71	— 1 43	0 30	6	24	0	0	0
Prince Albert	53 12	106 0	1432	29 90	30 35	29 47	0 88	60 7	+ 2 0	16	83 8	31	33 7	23	25 6			4	4	2	0	0	2	3	2	5	4	44	62		10 0	17 W	1 49	— 0 66	0 60	7	23	0	0	0
Battleford	52 41	108 20	1620	29 97	30 44	29 63	0 81	63 2	+ 1 0	10	88 0	15	32 0	23	27 3			4	4	7	23	47	170	14	25	217	104	137	744	5 4		20 7 17 W	0 91	— 1 45	0 38	7	23	0	3	1
Onnikup	53 30	101 20																																						
a Banff	51 10	115 35	4542	30 00	30 35	29 48	0 87	56 6	—	6	83 5	15	28 0	18	33 1			3	0	3	4	1	0	4	7	8	2	33	62		14 0	28 NE	0 82	— 0 21	10 20	0	2	0		
Chaplin	50 27	106 40	2202					65 3	+ 2 3	15	92 0	16	37 0	23	28 8																				0 00	— 0 44	0 00	0	31	0	0	0
Moose Jaw	50 21	105 35	1745					62 0	—	7	90 0	15	38 0	7	30 6																				0 39	— 0 16	6 25	1	1	0	0	
Regina	50 27	104 37	1885					63 5	+ 1 1	17	92 0	27	35 0	7	28 7																				R		R	0	28	0	0	0
Indian Head	50 28	103 40	1924					63 0	+ 0 9	11	91 0	16	36 0	8	27 1					0	12	13	16	8	5	1	38	0	93				0 00	— 0 71	0 00	0	31	0	0	0

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PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, AUGUST, 1901.

a. Barometer not reduced to Sea Level. *Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	Pressure. Mean reduced	Highest.	Lowest.	Range.	Temperature. Mean.	Difference from average.	Year observed.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of the Dew point.	Mean relative Humidity.	Mean amount of Cloud.	No. of days completely clouded.	Direction of Wind from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of hours	Velocity of Wind Mean miles per hour.	Highest day's velocity.	Date and direction from	Precipitation. Amount.	Difference from Average.	Heaviest fall in month.	Days with .01 or more	No. of Fair days	No. of Auroras.	No. of Thund. storms.	No. of Fogs.
	° ′	° ′		in.	in.	in.	in.	°	°		°		°		°	°																in.	in.	in.					
ONTARIO—(*Continued.*)																																							
Windsor	42 20	83 4	....	....	....	....	....	70·5	+ 0·3	26	84·5	15	53·2	5	16·8	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4·92	+2·51	1·83	8	23	0	0	0
Alton	43 51	80 5	1250	....	....	....	....	65·9	+ 1·2	14	88·2	15	46·5	2	19·9	....	....	....	....	6	1	6	0	5	1	3	8	1	31	....	....	....	3·61	+1·42	1·60	10	21	0	4	0
*a*Guelph	43 33	80 16	....	....	....	....	....	66·7	+ 1·9	13	89·0	14	50·0	9	—	....	....	....	....	13	3	11	5	1	37	21	2	0	93	....	....	....	0·87	−1·97	0·24	9	23	0	0	1
*North Bruce	44 23	81 25	....	....	....	....	....	67·1	+ 1·4	10	85·0	23	50·0	6	14·4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·40	−0·67	0·79	8	23	0	0	0
Collingwood	44 30	80 15	....	....	....	....	....	64·6	—	—	84·5	15	42·0	9	20·7	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1·68	—	0·51	11	20	0	4	2
Cooklyn	44 28	80 36	1339	....	....	....	....	66·4	+ 3·2	18	84·5	22	49·0	9	17·4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4·21	+1·19	0·87	12	19	0	4	0
Whiteside	45 0	79 30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Spruecdale	45 30	79 49	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Orillia	44 34	79 24	....	....	....	....	....	66·6	+ 1·6	9	86·0	22	46·0	8	18·8	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3·79	+1·62	1·17	8	22	0	5	1
Coldwater	44 38	79 40	....	....	....	....	....	65·8	+ 1·2	14	88·6	22	44·0	5	22·4	....	....	....	....	1	1	1	16	3	7	11	13	9	62	....	....	....	3·32	−0·90	0·85	11	20	0	6	0
Beatrice	45 8	79 20	....	....	....	....	....	64·0	+ 2·1	25	84·0	22	43·0	9	20·5	....	....	5	4	9	2	3	8	5	4	0	11	51	93	I	IV	8 NW	4·71	+1·42	1·07	11	20	0	3	2
Gravenhurst	44 54	79 20	770	....	....	....	....	66·5	+ 2·2	30	86·0	22	46·0	5	21·3	....	....	4	1	5	7	14	9	10	5	16	17	10	93	II	IV	22 S	5·36	+2·84	1·86	9	22	0	3	0
Haliburton	45 1	78 28	....	....	....	....	....	65·2	+ 1·7	13	87·0	14	40·0	5	25·5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·77	+0·15	0·46	12	19	0	5	0
*Point Clark	44 5	81 44	595	....	....	....	....	68·7	+ 2·7	30	95·0	21	43·0	11	—	....	....	2	0	36	4	6	5	36	2	4	0	0	93	III	V	31 N	....	....	....	0	1	0	0
Birnam	43 2	81 55	....	....	....	....	....	68·9	+ 2·7	18	90·7	14	44·7	5	20·2	....	....	....	....	9	2	3	9	7	6	4	16	9	62	....	....	....	1·94	−0·49	1·39	3	27	0	4	1
London	42 59	81 13	808	30·01	30·23	29	71·0	68·6	+ 1·3	18	88·0	14	43·0	5	22·8	61·7	76	3	0	0	2	0	2	0	18	65	6	0	93	I	II	4 W	1·29	−1·37	0·26	9	19	0	4	0
Port Stanley	42 40	81 13	592	30·01	30·23	29	77·0	68·8	+ 1·7	27	85·2	10	48·0	2	18·7	....	....	....	....	87	80	167	109	23	83	59	88	47	744	6·0	14·0	6 E	1·54	−0·88	0·49	6	23	0	4	2
Woodstock	43 3	80 47	980	29·99	30·17	29	77·0	68·1	+ 2·3	26	86·0	22	42·0	2	22·0	64·1	87	5	2	156	0	0	0	247	28	109	54	150	744	5·6	13·0	8 NW	5·57	+3·31	3·36	9	25	0	6	1
Port Dover	42 47	80 13	635	....	....	....	....	69·9	+ 1·0	26	89·5	20	46·3	9	18·0	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1·54	−0·59	0·58	6	23	0	3	0
Pelee Island	41 50	82 38	....	....	....	....	....	72·4	—	1·0	92·0	23	47·6	7	—	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	0·70	−1·49	·70	2	29	0	0	0
St. George	43 15	80 12	722	....	....	....	....	70·0	+ 3·3	17	86·0	15	42·0	9	24·0	....	....	5	1·0	13	24	11	3	3	11	26	2	0	93	....	....	....	2·91	+0·09	1·00	8	23	0	0	0
Paris	43 12	80 25	840	....	....	....	....	69·0	+ 1·9	11	91·0	14	45·0	9	23·2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4·42	+1·37	0·91	12	19	0	4	0
St. Mary's	43 15	81 11	1040	....	....	....	....	67·7	+ 1·8	12	85·0	22	45·0	5	20·2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	7·64	+4·86	4·60	6	24	0	3	0
*Biscotasing	47 3	82 8	....	....	....	....	....	63·2	—	—	80·0	17	36·0	31	—	....	....	....	....	15	4	12	13	20	4	16	3	3	93	....	....	....	0·50	—	0·50	1	26	0	0	1
Bloomfield	43 59	77 13	....	....	....	....	....	69·1	—	—	89·0	21	49·0	5	18·5	....	....	....	....	0	17	0	3	3	23	5	10	1	62	....	....	....	3·17	—	1·88	9	21	0	4	1
Calvin	46 16	78 48	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Agincourt	43 47	79 16	....	....	....	....	....	68·4	—	—	91·5	23	47·5	9	20·2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·59	—	0·80	8	22	0	7	4
Pickering	43 50	79 4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Hamilton	43 16	79 54	303	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Port Hope	43 56	78 20	....	....	....	....	....	68·5	—	—	84·0	21	48·0	8	20·2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·52	−0·28	0·94	11	20	0	4	1
Kinmount	44 45	78 38	....	....	....	....	....	65·0	—	—	88·0	25	38·5	8	26·0	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3·27	—	0·97	10	21	0	4	1
Cockburn Island	45 57	83 18	610	....	....	....	....	62·9	—	—	81·0	23	40·0	5	24·4	....	....	....	....	....	4	7	7	13	10	5	5	8	3	62	....	....	....	1·87	—	1·07	7	7	0	3	3
Chatham	42 23	82 12	595	....	....	....	....	70·6	+ 3·1	14	91·0	14	48·0	5	20·7	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1·34	−0·59	0·95	9	26	0	4	0
Dalhousie Mills	45 20	74 29	....	....	....	....	....	68·7	—	....	2·88	0	24	50·0	5	17·4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1·53	—	1·01	3	28	0	0	0
Menford	44 37	80 37	....	....	....	....	....	66·0	—	....	3·88	0	14	48·0	6	18·6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3·08	—	1·31	7	24	0	4	0
Ruthven	42 3	82 41	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Listowel	43 44	80 58	....	....	....	....	....	65·0	....	....	6·85	0	14	42·0	1	23·1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·44	—	1·53	6	25	0	0	0
Bruce Mines	46 18	83 55	....	....	....	....	....	63·7	—	—	3·82	0	20-28	43·0	5-31	21·1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1·88	—	0·72	7	24	0	2	2
Rat Portage	49 48	94 32	1102	....	....	....	....	64·8	—	—	2·86	5	18	45·0	3	—	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·53	—	0·77	9	22	2	2	0
Dunnville	42 54	79 39	....	....	....	....	....	69·3	—	—	2·88	0	14	48·0	3	18·2	....	....	....	....	0	9	3	1	6	4	1	6	1	31	....	....	....	2·43	—	0·93	9	22	0	4	0
*Heron Bay	48 40	87 10	....	....	....	....	....	58·0	—	—	7·87	0	19	45·0	0	30·—	....	....	....	....	8	1	0	0	0	1	66	0	17	93	....	....	....	1·45	—	0·65	3	28	0	0	0
Sturgeon Falls	46 16	79 54	....	....	....	....	....	64·8	—	—	2·86	0	22	44·0	12	20·1	58·6	70	....	....	7	12	1	1	16	25	8	0	8	73	....	....	....	3·90	—	1·60	8	23	0	2	0
QUEBEC:—																																							
Montreal	45 30	73 35	187	30·00	30·28	29	71·0	67·3	+ 0·5	27	84·7	22	55·0	19	14·6	....	76	....	....	80	47	151	20	8	10	306	20	2	744	10·4	18·3	17 NW	5·44	+1·87	1·34	11	17	0	6	0
Richmond	45 40	72 8	435	....	....	....	....	65·8	+ 2·3	24	85·0	22	44·0	19	23·0	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4·37	+0·88	1·43	16	15	0	0	0
Brome	45 10	72 36	....	....	....	....	....	64·3	+ 0·7	20	81·0	27	41·0	19	18·6	....	....	4	8	12	5	3	2	19	33	14	6	0	93	....	....	....	2·42	−1·91	0·58	11	20	0	5	0
Quebec	46 48	71 12	296	30·00	30·31	29	72·0	65·5	+ 1·9	27	83·5	23	48·5	9	18·0	....	....	6	9	7	21·4	46	4	17	276	150	24	6	744	8·7	32·7	31 NE	5·83	+2·00	1·23	12	19	0	8	0
Chicoutimi	48 25	71 5	150	....	....	....	....	63·4	+ 2·7	15	85·8	30	41·3	19	25·0	....	....	6	3	0	9	0	26	0	33	0	22	3	93	H	V	17 NW	2·17	−1·60	0·79	9	22	1	1	1
Father Point	48 31	68 19	20	29·97	30·26	29	69·0	56·9	+ 1·5	24	87·7	23	41·0	26	19·0	....	....	6	10	2	2	5	0	2	5	26	2	18	6	....	88·0	17 NW	2·04	−1·01	0·88	11	20	0	1	1
Cape Chatte	49 6	66 45	....	....	....	....	....	61·5	+ 2·8	19	77·0	24	53·0	18	—	....	....	....	....	0	0	4	0	4	23	13	1	48	93	....	....	....	1·80	−1·45	0·62	5	26	1	1	3
Bicquette	48 25	68 53	....	....	....	....	....	53·0	+ 0·3	18	63·0	27	46·0	16	—	....	....	....	....	0	8	0	0	1	23	25	3	33	93	....	....	....	2·10	−0·88	0·50	9	22	0	0	10
*Cape Magdalen	49 16	65 20	....	....	....	....	....	60·7	+ 1·9	18	80·0	24	50·0	19	—	....	....	....	....	4	1	2	1	23	3	2	36	21	93	....	....	....	2·03	−0·60	0·45	9	22	0	0	3
Anticosti, W. Pt.	49 52	64 32	....	....	....	....	....	58·6	+ 1·2	19	75·0	27	51·0	31	—	....	....	....	....	3	10	8	6	8	29	5	20	12	0	93	....	....	....	1·56	−2·31	0·90	8	23	0	1	5
Anticosti, S.W. Pt	49 24	63 35	30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Abitibi	48 43	79 22	....	....	....	....	....	61·7	—	—	5·83	0	21	40·0	31	16·6	....	....	....	5	2	10	1	0	0	16	6	17	5	38	93	1	IV	8 NW	5·45	—	3·00	14	17	0	0	0
*Anticosti, E. Pt.	49 6	61 42	....	....	....	....	....	59·5	+ 3·2	17	68·0	13	52·0	25	—	....	....	....	....	....	....	5	16	4	6	32	0	27	0	3	93	....	....	....	0·70	—	0·50	3	28	0	0	0

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OBSERVATIONS AT STATIONS REPORTING RAIN, WEATHER &c., DURING AUGUST, 1901.

STATIONS.	Rainfall.					Thunder or Lightning.	Remarks.
	Amount in inches.	No. of Days '01 or Over.	No. of Fair Days.	Heaviest Fall in Month.	Date.		
	in.			in.			
British Columbia—							
Nanaimo	0·20	1	30	0·20	31		
Kuper Island	0·16	1	30	0·16	31		
Royal Oak	0·00	0	31				
Caulfields	0·06	2	5	0·05	26		
Goldstream Lake	0·04	1	30	0·04	31		
Coquitlam	0·07	1	30	0·07	26		
Naas Harbour	9·89	12	19	3·02	29		
Port Essington	12·95	16	15	2·81	30		
Vancouver	0·27	2	29	0·22	27		
N. W. Territories—							
E. Beaver Hills	0·48	3	28	0·25	23	5, 7, 23.	
Regina	0·92	4	26	0·65	10	23.	Frost on 7th.
Saltcoats	0·60	4	27	0·30	22		
Weyburn	4·01	11	20	0·90	26		26th, heavy hail storm.
Calgary	0·33	3	28	0·19	27		5th, violent storm of hail, rain [and wind.
Didsbury	1·34	8	23	0·40	8	25, 26, 27.	
Stirling	0·93	3	27	0·70	3		
Innisfail	0·73	7	22	0·42	26		
Strathcona	0·82	5	26	0·61	8	4, 5, 8, 27.	
N.E. Beaver Hills	1·20	5	26	0·86	8		
Manitoba—							
Cartwright	3·00	6	25	1·33	22	22.	
Morden	2·67	6	22	1·10	8	20, 21, 29.	
Belmont	1·64	5	23	0·72	8	4, 10, 17, 23, 28.	
Beaver	1·67	5	26	1·12	28		
Norquay	2·81	8	21	0·87	9	5, 11, 29. [27, 28.	Frost on 8th.
Pembina Crossing	2·16	7	21	0·88	22	4. 5, 9, 10. 17, 19, 22, 23, 26,	
Oakbank	1·50	6	18	0·48	10	10, 13, 14, 20, 28.	
Clearspring	2·42	10	18	0·70	9	4, 10, 11, 17, 20, 27, 28.	Furious gale on 28th.
Deloraine	1·37	6	25	0·60	21	21, 26.	23rd, geese going south.
Ontario—							
Nottawasaga Island	1·60	6	25	0·50	19	19, 22.	
Missanabie	3·40	10	21	0·60	11		
Ursa	4·26	11	20	1·12	29	8, 15, 22, 29.	17th, hail ¾ inch, swallows gone.
Princeton	4·67	7	24	1·66	23	23, 30, 31.	
Uxbridge	2·12	6	25	0·68	15	15.	
Lynedoch	2·03	5	26	0·94	30		
Sunshine	2·75	7	24	0·92	20	20.	
Providence Bay	1·31	9	21	0·52	15	14, 15, 29, 30.	
Goderich	1·40	4	27	0·50	23		
Wiarton	3·61	6	25	1·80	19	19, 21, 22, 29.	
Watford	0·48	3	28	0·22	26		
Westminster	1·83	7	24	0·57	20	15.	
Arden	1·87	11	20	0·46	7	8, 9, 11, 16, 22, 30, 31.	
Huntsville	4·69	8	23	1·10	19	10, 30.	
Mowtague	2·35	7	24	0·55	8		8th, heavy hail.
Croydon	1·95	6	25	0·65	31	19, 22.	7th, hail as large as marbles.
Wyoming	1·12	2	29	0·70	20	19, 20, 22, 23.	
Deer Park	3·27	8	23	1·13	31	23, 27.	
Dealtown	1·75	3	28	1·02	23	23.	
Port Burwell	1·53	3	28	0·79	23		
Scarboro'	2·77	7	21	1·33	31	8, 15, 24, 26, 29, 30, 31.	
Dutton	0·45	1	28	0·45	29	29.	
Aurora	4·57	9	22	1·25	22	15, 22, 23, 26, 29.	
Orangeville	5·96	8	23	2·20	24		
Jermyn	4·23	7	24	2·15	30	19, 22, 23, 26, 28, 30.	
Wooler	1·56	6	25	1·66	31	15, 22, 23, 29.	
Westport	4·13	13	18	0·68	7	8, 19, 20, 22, 29, 30.	
N. Williamsburg	3·15	10	20	1·50	30		
Lansdowne	3·72	6	25	1·06	22	31.	8th, hail 1½ in. diameter.
Georgetown	3·44	14	15	1·07	31	15, 19, 22, 23, 26, 30, 31. [30.	
Emsdale	3·49	10	21	0·76	9	2, 10, 13, 14, 19, 22, 23, 26, 29,	
Parma	2·70	5	26	1·23	31	23.	
Midland	2·51	8	23	0·95	23	15, 18, 22, 23, 30.	
Cayuga	0·99	3	22	0·50	30		8th, light frost.
Lion's Head	5·40	6	25	2·60	19	19, 22, 30.	
Elgin	2·56	6	25	0·84	7		
Kitley	2·71	8	23	0·59	29	8, 23.	
Ennismore	2·30	5	26	1·10	10		
New Brunswick—							
Point Escuminac	0·99	5	26	0·38	11		
Nova Scotia—							
Port Morien	1·41	7	24	0·60	13		

PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY DURING WHICH THE SUN WAS ABOVE THE HORIZON IN THE MONTH OF AUGUST, 1901.

	Hours Ending															
	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.
Victoria	0·00	0·17	0·54	0·73	0·74	0·79	0·84	0·83	0·83	0·85	0·86	0·89	0·85	0·61	0·15	0·00
Nanaimo	0·00	0·27	0·63	0·75	0·77	0·72	0·71	0·75	0·82	0·81	0·83	0·85	0·86	0·82	0·52	0·15
Agassiz	0·00	0·00	0·11	0·40	0·62	0·65	0·76	0·76	0·74	0·72	0·70	0·66	0·62	0·36	0·12	0·00
Battleford	0·30	0·65	0·76	0·82	0·85	0·86	0·85	0·85	0·87	0·84	0·77	0·74	0·71	0·71	0·66	0·30
Indian Head	0·00	0·00	0·00	0·19	0·63	0·71	0·77	0·77	0·75	0·74	0·73	0·75	0·69	0·57	0·12	0·00
Brandon	0·02	0·46	0·69	0·73	0·74	0·82	0·79	0·77	0·79	0·80	0·83	0·81	0·70	0·31	0·00	0·00
Winnipeg	0·02	0·42	0·53	0·71	0·68	0·71	0·68	0·68	0·67	0·65	0·66	0·66	0·68	0·65	0·30	0·00
Durham	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Woodstock	0·05	0·31	0·32	0·58	0·60	0·57	0·64	0·64	0·66	0·68	0·55	0·47	0·33	0·07	0·01	0·00
Toronto	0·00	0·01	0·53	0·61	0·65	0·59	0·62	0·61	0·67	0·57	0·56	0·53	0·46	0·24	0·01	0·00
Lindsay	0·00	0·10	0·25	0·42	0·61	0·59	0·62	0·57	0·63	0·60	0·57	0·50	0·42	0·40	0·29	0·08
Barrie	0·06	0·33	0·55	0·64	0·67	0·70	0·69	0·74	0·69	0·74	0·76	0·67	0·63	0·66	0·26	0·00
Kingston	0·00	0·01	0·18	0·57	0·65	0·66	0·61	0·64	0·61	0·55	0·54	0·50	0·42	0·39	0·10	0·00
Ottawa	0·00	0·13	0·45	0·62	0·68	0·62	0·64	0·64	0·57	0·55	0·60	0·65	0·54	0·49	0·11	0·00
Montreal	0·00	0·04	0·36	0·48	0·58	0·63	0·62	0·60	0·63	0·58	0·52	0·53	0·29	0·06	0·00	0·00
Fredericton	0·00	0·11	0·31	0·49	0·54	0·62	0·66	0·67	0·65	0·65	0·66	0·68	0·60	0·49	0·17	0·00

	Victoria.	Nanaimo.	Agassiz.	Battleford.	Indian Head.	Brandon.	Winnipeg.	Durham.	Woodstock.	Toronto.	Lindsay.	Barrie.	Kingston.	Ottawa.	Montreal.	Fredericton.
Mean proportion for month (*Constant sunshine being 1.*)	0·67	0·71	0·51	0·75	0·52	0·64	0·61	.....	0·47	0·50	0·48	0·58	0·46	0·52	0·49	0·52
Difference from average	+ 0·12	—	+ 0·06	+ 0·21	+ 0·03	+ 0·09	+ 0·02	.....	— 0·08	— 0·09	— 0·07	+ 0·02	— 0·11	—	— 0·09	+ 0·02
Maximum daily amount	0·87	0·91	0·81	1·00	0·74	0·91	0·91	....	0·81	0·89	0·93	0·87	0·84	0·88	0·94	0·91
Date	3–10	17	14	15–16	15	18	13	.....	13	5	13	13	13	13	4	19
No. of days completely clouded	0	1	4	1	3	0	2	.....	3	1	3	3	2	2	3	2

Thunder recorded on :—

1. Charlottetown, Alameda.

2. Durham, Banff, Princeton, Kaslo, Emsdale.

3. Quebec, Bowsman.

4. Battleford, Bowsman, Belmont, Pembina Crossing, Strathcona, Clearspring.

5. Battleford, Red Deer, Crane Lake, Muskowpetung *(hail)*, Bowsman, E. Beaver Hills, Norquay, Pembina Crossing, Strathcona.

6. Stony Mountain, Lakefield.

7. Port Arthur, Summerside, Welland, E. Beaver Hills.

8. Macleod *(hail)*, Quebec, Barkerville, Battleford, Otonabee, Birnam, Haliburton, Paris, Clontarf, Stony Creek, Brantford, Richmond, Cape Chatte, Red Deer, Crane Lake, Tobacco Plains, Bullion, Strathcona, Arden, Scarboro, Westport, Kitley, Ursa, Toronto, Montreal.

9. Summerside, Sussex, Bala, Lakefield, Welland, Red Deer, Gatesgarth, Muskowpetung, Bowsman, St. John.

10. Deseronto, Swift Current, Parry Sound, Winnipeg, Otonabee, Summerside, Sussex, Beatrice, Rat Portage, Haliburton, Richmond, Alameda, Aweme, Bowsman, Belmont, Oak Bank, Hillview, Huntsville, Emsdale, Clearspring, Montreal.

11. Charlottetown, Lakefield, Norquay, Arden.

12. Port Arthur, White River.

13. St. Agathe, Port Arthur, Bowsman, Oak Bank, Emsdale, Haileybury.

14. Rat Portage, Oak Bank, Emsdale, Providence Bay, Haileybury.

15. Coldwater, London, Lindsay, Deseronto, Parry Sound, Bissett, Port Stanley, Father Point, Otonabee, St. Mary's, Meaford, Port Hope, Kinmount, Haliburton, Orillia, Agincourt, Clontarf, Rocklyn, Peterborough, Uplands, Westminster, Scarboro, Aurora, Wooler, Midland, Ursa, Uxbridge, Providence Bay, Georgetown, Toronto, Haileybury.

16. Bissett, Charlottetown, Arden.

17. Minnedosa, Pembina Crossing, Clearspring.

19. Coldwater, Durham, Kingston, Port Stanley, Otonabee, Meaford, Port Hope, Birnam, Orillia, Lucknow, Lakefield, Brantford, Peterborough, Owen Sound, Erasmus, Princeton, Kaslo, Nottawasaga Island, Pembina Crossing, Wiarton, Jermyn, Westport, Emsdale, Midland, Lion's Head, Georgetown.

20. London, Rat Portage, Dunnville, Point Clark, Lakefield, Brantford, Welland, Kaslo, Pembina Crossing, Oak Bank, Wyoming, Clearspring, Sunshine, Toronto.

21. Birnam, Stony Creek, Lucknow, Welland, Wiarton, Deloraine.

22. Coldwater, London, Desoronto, Gravenhurst, Guelph, Port Arthur, Ottawa, Parry Sound, Quebec, Qu'Appelle, Otonabee, Bruce Mines, Beatrice, Dunnville, Cockburn Island, Meaford, Port Hope, Kinmount, Haliburton, Port Dover, Orillia, Agincourt, Clontarf, Bala, Rocklyn, Lucknow, Brantford, Owen Sound, Erasmus, Richmond, Gatesgarth, Alameda, Muskowpetung, Aweme, Nottawasaga Island, Cartwright, Pembina Crossing, Croydon, Aurora, Westport, Emsdale, Midland, Ursa, Georgetown, Toronto, Montreal.

23. Coldwater, Lindsay, Durham, Deseronto, Guelph, Port Stanley, Otonabee, Dunnville, St. Mary's, Port Hope, Bloomfield, Paris, Agincourt, Bala, Ridgetown, Lucknow, Peterborough, Owen Sound, Erasmus, Moose Jaw, Moosomin, E. Beaver Hills, Belmont, Pembina Crossing, Wyoming, Deer Park, Dealtown, Aurora, Wooler, Emsdale, Parma, Midland, Kitley, Princeton, (Ont.), Georgetown, Toronto, Montreal.

24. Arden, Scarboro.

25. Nanaimo, Yarmouth, Banff, Cockburn Island, Red Deer, Princeton, Didsbury.

26. Guelph, Halifax, Otonabee, Dunnville, St. Mary's, Port Dover, Orillia, Agincourt, Stony Creek, Sarnia, Erasmus, Crane Lake, Gatesgarth, Alameda, Aweme, Pipestone, Bowsman, Pembina Crossing, Hillview, Didsbury, Scarboro, Aurora, Emsdale, Georgetown, Toronto, Deloraine.

27. Macleod, Swift Current, Red Deer, Crane Lake, Bowsman, Strathcona, Deer Park, Clearspring.

28. Port Arthur, Winnipeg, Qu'Appelle *(hail)*, Alameda, Muskowpetung, Aweme, Belmont, Pembina Crossing, Oak Bank, Clearspring.

29. Coldwater, Gravenhurst, Guelph, Sturgeon Falls, Bruce Mines, Beatrice, Paris, Cockburn Island, Meaford, Kinmount, Birnam, Port Dover, Orillia, Agincourt, Stony Creek, Brantford, Uplands, Erasmus, Chicoutimi, Bowsman, Morden, Norquay, Wiarton, Scarboro, Dutton, Aurora, Wooler, Westport, Emsdale.

30. Coldwater, London, Lindsay, Desoronto, Gravenhurst, Sturgeon Falls, Parry Sound, Kingston, Port Stanley, Otonabee, Dunnville, St. Mary's, Port Hope, Bloomfield, Kinmount, Birnam, Haliburton, Port Dover, Paris, Clontarf, Stony Creek, Bala, Rocklyn, Lakefield, Brantford, Peterborough, Welland, Owen Sound, Richmond, Arden, Huntsville, Scarboro, Jermyn, Emsdale, Midland, Lion's Head, Princeton, (Ont.), Providence Bay, Georgetown, Toronto, Montreal (2), Haileybury.

31. Deseronto, Kingston, Dunnville, St. Mary's, Port Dover, Stony Creek, Welland, Arden, Scarboro, Princeton, (Ont.), Georgetown, Toronto.

Aurora recorded :—

Where the class of aurora is noted by the observer, it is given (I) being the brightest, (IV) the feeblest in brilliancy.

4. Aweme, IV.

6. Channel Island, IV.

7. Pembina Crossing, IV.

10. Haileybury.

13. St. Agathe, IV.; Moose Jaw ; Channel Island, IV.

14. Truro, IV. ; Rat Portage ; Red Deer, III. ; Aweme, I. ; Pembina Crossing, III. ; Strathcona, II.

15. Savanne ; Aweme, III. ; Hillview, II. ; Strathcona, IV ; Haileybury, IV.

16. Rat Portage ; Savanne ; Pembina Crossing, IV.

17. Haileybury.

20. Truro, IV. ; Chicoutimi ; Cape Chatte, I.

26. Savanne.

FORECASTS FOR AUGUST, 1901.

The forecasts issued by this office at 11 p m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of predictions issued during the month was 1125. These were divided as follows :—

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Percentage
Manitoba	96	87	6	3	93·8
Lake Superior	117	100	15	2	91·9
Lower Lake Region	130	110	16	4	90·8
Georgian Bay	128	107	15	6	89·5
Ottawa Valley	106	85	10	11	84·9
Upper St. Lawrence	106	86	11	9	86·3
Lower St. Lawrence	109	86	15	8	85·8
Gulf	111	96	10	5	91·0
Maritime Provinces, West	111	90	13	8	86·9
Maritime Provinces, East	111	88	15	8	86·0
Total	1,125	935	126	64	88·7

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART,
Director.

Meteorological Office, Toronto,
26th September, 1901.

METEOROLOGICAL SERVICE, DOMINION OF CANADA.

Monthly Weather Review.

VOL. XXV SEPTEMBER, 1901. No. 9

INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm signal agents. For the material used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

REMARKS UPON THE WEATHER.

The chief departure from the normal weather conditions for September occurred in the North-west Territories and Manitoba, where it was unusally cool and cloudy, with much precipitation. Elsewhere, with some local exceptions, the departures were comparatively unimportant. Frosts occurred in each province, and everywhere the usual signs in wood and field of approaching winter were noticeable.

In British Columbia the weather differed little from the normal, but in most districts it was somewhat drier than usual, and in Vancouver Island the proportion of bright sunshine was considerable above average. Light frosts were recorded at many places, and by the 30th vegetation which was in average condition showed many signs of decay.

The weather in the North-west Territories was exceptionally dull, cool, and wet, the mean temperature and proportion of bright sunshine being considerably below average, and the precipitation above. Hard frosts occurred generally and a temperature below 20° was reported from some places. Falls of snow were recorded at nearly all stations, but it was soon melted. During the last week of the month dense fog prevailed in Alberta, this being most unusual. By the 30th, the trees in many districts were almost denuded of leaves and everywhere the leaves were falling.

In the Province of Manitoba the weather conditions were very similar to the conditions in the Territories, but the weather was not quite so cool, and in the eastern portion there was more sunshine. The frosts that occurred cut down the more delicate plants, and in most districts the trees were changing colour and the leaves were falling.

In Ontario the weather was somewhat warmer than usual excepting in the extreme northern and north-western districts, where on the contrary, the mean temperature was rather below the average. The precipitation did not depart much from the normal, excepting locally, but although it was below average at many places, in most districts it was a little above. The proportion of bright sunshine differed little from the average, a slight excess being recorded at only two stations. Light frosts were almost general and by the end of the month both wood and field showed many signs of autumn decay.

The weather in the Province of Quebec was somewhat warmer and drier than usual, the mean temperature being above average and the precipitation below. Few important storms occurred, and altogether the weather was exceptionally fine and bright. Frosts were recorded at most places and by the end of the month the trees were changing colour.

In New Brunswick the weather conditions were similar to the conditions in Quebec, the mean temperature being a little above average and the precipitation below. In most districts there was much fine weather and the proportion of bright sunshine was a little above average. Light frosts were reported from most stations after the 20th, and ice formed in northern districts on the 27th. Vegetation was in normal condition on the 30th, many plants withering and trees taking on their autumnal tints.

In Nova Scotia the weather was unusually warm and somewhat wetter than usual, both the mean temperature and precipitation being above average. Much fine bright weather occurred during the month and the winds seldom exceeded moderate or fresh breezes. Light frosts were recorded at only a few places and the signs of autumn decay were not so marked as usual.

The weather in Prince Edward Island was unusually mild, and in most districts the rainfall was somewhat in excess of the average. There was much fine weather during the month and no important storms were recorded. Light frosts occured at a few places but vegetation was only slightly damaged, and in most districts the trees were quite green on the 30th.—F. F. Payne.

ATMOSPHERIC PRESSURE.

The mean atmospheric pressure was highest (30·05) over the more central portions of Ontario, and lowest in Cape Breton and Newfounland; Sydney, C.B. recording 29·93, and St. Johns, 29·85. The lowest mean reported from the west was 29·92 at Kamloops, B.C. The greatest positive departures from average, about one-tenth of an inch, occurred in Saskatchewan, and the largest minus departures, nearly same amount, in Cape Breton. British Columbia stations ranged from ·03 to ·05 below the average.

HIGH AREAS.

No. 1 was a continuance of No. 8 of last month, and during the first six days of September moved slowly, as a comparatively unimportant area from the Upper Mississippi Valley to the New England Coast, its attending temperatures rising until during the 3rd, 4th and 5th maximum between 80° and 90° were prevalent in the Lower Lake Region. During the 6th it was absorbed by No. 2, which had appeared in the North-west Territories on the 5th, and with increasing energy moved slowly eastward. Barometric readings of 30·60 and upward occurred in Northern Manitoba on the 7th, after which the area moved south-eastward across the Great Lakes, and by the 10th was over the Atlantic States, as a not very important area. No. 3. An area, which appeared in British Columbia on the 15th, and moved at a fairly uniform and rapid rate to the Upper Mississippi Valley, and thence across the Lake Region and St. Lawrence Valley; it was the area, which filled in behind Low No. 4, giving the gradient for the gales on the Great Lakes during the 15th and 16th; it was east of Newfoundland by the 21st. No. 4 closely followed No. 3, but moved further south, and hovered near the Middle Atlantic Coast from 21st until 24th, when it merged in No. 5. No. 5 was an area of pronounced type, which appeared suddenly in Saskatchewan on the 23rd, and moved rapidly south-eastward across the Lake Region, and off the New England Coast to the Atlantic. During its transit across Ontario and Quebec light frosts occurred at many points, but the temperature was scarcely as low as that which sometimes accompanies important areas at this season. No. 6 was either an offshoot from a Pacific Coast high or developed in the North-west Territories, it was centred in Manitoba on the morning of the 28th, was sluggish in its movements, and passed slowly east and south to the Lake Region.

LOW AREAS.

No. I was a shallow area of uncertain movement, over the North-west States from 1st to 4th; it then developed rapidly, passing north-east across Eastern Assiniboia and Manitoba, there giving strong winds and a fairly heavy rainfall. No. 2 and 3 were comparatively shallow areas of small diameter, which probably might be traced from an extensive low, which lay over the Pacific States during the first few days. They passed eastward from the Missouri Valley, across the Lake Region to the Maritime Provinces, the former attended by heavy showers in Ontario during the 10th and 11th, and in Southern New Brunswick on the 11th, and more scattered showers in the Maritime Provinces during the 13th. No. 4. On the 13th, a shallow trough of low pressure extended from the Canadian North-west Territories to Mexico. By the 14th there had been a decided easterly movement, and rain had become general within its boundaries. By the evening of the 15th this trough formation had nearly disappeared, and a deep depression was centred in Lake Superior whence it moved away to the north-eastward, while a heavy south-westerly gale was general on the Great Lakes; its course across James Bay and Labrador lay far to the northward, and although showery weather, which prevailed in the St. Lawrence Valley and Maritime Provinces on the 16th and 17th, is clearly traceable to this disturbance, the winds did not exceed fresh or strong in these regions. No. 5 is shown by the Pilot Chart issued by the United States Hydrographic Office to have been a West India storm of feeble energy; it passsed to the southward of Nova Scotia on the 19th; heavy rains occurred in that province, but heavy winds were not reported on the coast. No. 6 was a rapidly moving storm, the centre of which passed quickly north-eastward across Nova Scotia during the night of the 20th and 21st; it came from the Atlantic, and may perhaps have originated in the Tropics. No. 7 passed from the Pacific Coast south of the 49th parrallel and Minnesota, and thence a little more northerly across Canada and Labrador; during the first half of its passage across the continent strong cold easterly winds with showers prevailed in the Canadian North-west, and subsequently as it passed towards Newfoundland, and the important high designated as No. 5 filled in behind it, a heavy north-westerly gale blew in the Gulf of St. Lawrence. No. 8 moved from the United States rapidly across Manitoba, attended during the 25th, in that province, by a heavy rainfall, and in Assiniboia and Saskatchewan by a snowfall. No. 9 was a shallow disturbance, which apparently developed over the North-west States, and during the 27th and 28th moved quickly across Lake Superior and Northern

Canada. No. 10 was apparently of West Indian origin. During the 27th and 28th it moved from the Southern States to Lake Erie as a shallow depression accompanied by a fairly extensive rain area, then during the 29th, with rapidly increasing energy, to Northern New Brunswick and thence eastward, and heavy rains in the St. Lawrence Valley and Gulf were on the 30th followed in the latter region by very heavy north-westerly gales.

BRIGHT SUNSHINE.

Victoria and Nanaimo, B.C., and Toronto and Montreal are the stations reporting the largest amount of bright sunshine, the percentage of the possible amount being respectively 56, 57, 58 and 60. The smallest amount recorded was 22 per cent at Indian Head, N.W.T., and stations in the Territories generally ranged from 15 to 20 below average. Winnipeg reported 42 per cent or 5 below average. These figures indicate unusually bright weather in Vancouver Island, exceptionally dull weather in the North-west Territories, average sunshine in Ontario, and a decided tendency for records above average along the St. Lawrence and in the Maritime Provinces.

WINDS.

Perhaps the most marked feature as regards the winds was their extreme variableness from Assiniboia eastward to the Lake Region, while in the northern and western portion of the Territories and in British Columbia there was a pronounced tendency from easterly directions, and in the St. Lawrence Valley an almost entire absence of winds other than from directions between west and south. In British Columbia the wind mileage was somewhat in excess of the average, and two moderate gales occurred; in the North west Territories the wind was strong on seven days, and there was one gale. On Lake Superior there were three days of strong wind and one gale; on the Lower Lakes there were two gales and several days of strong winds; along the St. Lawrence four days of strong winds and two moderate gales; in the Gulf three heavy gales and in the Maritime Provinces two moderate gales.

TEMPERATURE.

The temperature was below the average from the Mainland of British Columbia as far as and including the Lake Superior District, and above the average elsewhere in Canada except in the extreme north-eastern portion of the Province of Quebec where the average was just maintained. Over the greater part of the North-west Territories the deficiency was from 6 to 7 degrees, whilst in the Maritime Provinces the excess was from 3 to 4 degrees, and in Ontario from 1 to 3 degrees.

The Highest and Lowest temperatures in each Province during September, 1901, were:

British Columbia,	86°·1 on 1st at Tobacco Plain.	20°·0 on 29th at Barkerville.
North-west Territories,	96°·5 on 3rd at Estevan.	16°·5 on 17th at Athabasca Land'g
Manitoba,	96°·0 on 3rd at Treherne.	18°·0 on 18th at Minnedosa.
Ontario,	96°·0 on 4th at Point Clark.	18°·0 on 19th at White River.
Quebec,	88°·0 on 7th at Richmond.	26°·0 on 26th at Richmond & Brome.
New Brunswick,	94°·0 on 6th at Bathurst.	27°·7 on 26th at Stephen.
Nova Scotia,	88°·0 on 7th at Sydney.	30°·9 on 27th at Parrsboro.
Prince Edward Island.	83°·0 on 8th at Hamilton.	34°·1 on 27th at Summerside.

PRECIPITATION.

The precipitation was much above the average in the North-west Territories and Manitoba; average or a little above over the larger portion of British Columbia; above the average over the greater portion of Nova Scotia, and below in all the remaining portions of Canada, except at a few places in Ontario where it was also above the average. In the Territories and Manitoba the excess was from one and a half to three inches and snow was generally recorded on more than one occasion. In Quebec the deficiency was an inch and over in nearly all portions of the province, and in Ontario it was for the most part from a tenth to half an inch, except at Peterboro and Welland where it reached 1·70 and 2·10 inches respectively. The chief excesses reported in Ontario were Ridgetown 1·32 inches, Stony Creek 0·9 of an inch, Brantford and Orillia 0·8 of an inch. Halifax recorded as much as three inches and a quarter above the average, while Chatham, N.B., was an inch below the average.

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, SEPTEMBER, 1901.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	Pressure. Mean reduced.	Pressure. Highest.	Pressure. Lowest.	Pressure. Range.	Temperature. Mean.	Temperature. Difference from average.	Temperature. Years observt.	Temperature. Highest.	Temperature. Date.	Temperature. Lowest.	Temperature. Date.	Temperature. Mean daily range.	Mean temperature of Dew-point.	Mean relative Humidity.	Mean amount of cloud	No. of days completely clouded.	Direction of Wind from N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	C.	Total number of hours.	Velocity of Wind. Mean miles per hour.	Highest day's velocity.	Date and direction from.	Precipitation. Amount.	Difference from Average.	Heaviest fall in month.	Days with .01 or more	No. of Fair days.	No. of Aurorae.	No. of Thunderstorms.	No. of Fogs.
	° ′	° ′		in.	in.	in.		°	°		° ′		° ′		°																								
BRITISH COLUMBIA:																																								
Victoria	48 24	123 19	85	29 97	3 31	29 22	1·09	56·1	+ 1·1	10	75·2	18	39 3	30	13 6	.....	.....	5	4	173	63	42	51	59	176	67	34	55	720	6 9	15 0	13 SW	0 90	−1 26	0 22	8	22	0	0	1
Barkerville	53 2	121 35	4180	29 94	30 49	29 08	1·41	44 2	− 2 8	13	70·0	11	20·0	29	22·0	.....	.....	6	8	2	1	1	1	2	1	1	0	51	60	.....	.....	.....	3 52	+0 61	0 60	11	18	0	0	0
Agassiz	49 14	121 31	52	.....	.....	.....	.....	51·6	+ 0 7	11	79 0	18	35 0	26	31 4	.....	.....	4	0	45	0	0	0	27	0	18	0	0	90	.....	.....	.....	1·59	−3·23	0 42	10	20	0	0	0
Port Simpson	54 34	130 26	26	29 91	30 40	29 18	1 22	52 4	− 0·3	14	68·0	7	41·5	30	14 3	50 1	92	7	13	6	0	1	11	7	2	10	4	49	90	1	III	13 8	5 85	−2 81	1 13	16	14	0	1	19
Spence's Bridge	50 23	121 20	770	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hazelmere	49 3	122 44		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Revelstoke	51 0	118 6	1476	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kamloops	50 41	120 29	1193	29 92	30 46	29 21	1·25	57 3	.....	.....	88 3	1	32·0	1	23 4	.....	.....	5	6	0	1	9	5	0	1	7	3	34	60	.....	.....	.....	1·21	+0 36	0 24	12	18	0	0	0
Princeton	49 28	120 29	1650	.....	.....	.....	.....	52 2	—	.....	79 0	17	24·0	30	30 4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·00	—	0 46	9	21	0	2	0
Pilot Bay	49 36	116 55		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rivers Inlet	51 39	127 19	20	30 00	30 38	29 23	1 15	53·9	—	.....	74·0	5	37·3	29	14·5	50 6	90	5	5	0	2	1	1	0	5	16	0	65	90	1	III	19 SW	4 43	—	0 81	8	22	0	0	0
Stuart's Lake	54 28	124 12	1800	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nicola Creek	49 20	124 36	2120	.....	.....	.....	.....	54 8	− 0·2	.....	77·0	7	34·0	30	23·7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·12	−1·04	0·20	9	21	0	0	0
Coldstream	50 14	119 15	1246	.....	.....	.....	.....	53·1	—	.....	68·4	1	30·0	28	22 5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 27	—	0 30	9	21	0	0	0
Nanaimo	49 10	123 57		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chilliwack	49 10	121 57	21	29 90	30 23	29 29	0·94	56·5	—	5	80·1	18	33 0	20	19 2	51·2	86	4	0	0	3	31	7	9	16	17	0	0	83	13 6	20 7	29 E	2 47	—	0 51	14	17	0	0	0
Quatsino	50 32	128 3		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Midway	49 0	118 46	1800	.....	.....	.....	.....	51·6	—	7	84·0	18	27·0	15	32·4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·44	—	0 80	5	25	0	0	0
Enderby	50 32	119 7	1180	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nicola Lake	49 9	120 39	2120	.....	.....	.....	.....	51·1	—	.....	74·0	7	30·0	16	20·8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·12	0 29	11 19	0	0	0	0	0
West Kootenay	49 20	117 50		.....	.....	.....	.....	51 1	—	.....	74·0	3	31 0	29	19 1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·78	—	0 53	14	16	0	0	4
Garry Point	49 21	123 17		.....	.....	.....	.....	54·1	—	.....	68·0	19	33·0	24	18 5	.....	.....	.....	.....	1	8	14	7	13	1	13	25	8	90	7·2	16 0	27 SW	2·46	—	0 81	9	21	0	0	9
Tobacco Plains	49 1	115 5	2300	.....	.....	.....	.....	49 6	—	.....	66 1	1	24·0	29	23 4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·85	—	0 40	11	19	0	1	2
Vancouver	49 17	123 5	195	.....	.....	.....	.....	54 2	—	.....	81·9	16	33·9	30	21 5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2 65	—	0 83	9	21	0	0	0
New Westminster	49 13	122 54	330	29 99	30 33	29 32	1 01	55 2	—	.....	78·5	19	33 6	30	19 6	.....	.....	4	8	3	0	10	0	4	15	4	0	24	60	.....	.....	.....	2 76	—	0 74	9	21	0	0	0
*aLadner	49 5	123 4		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
N. Nicomen	49 12	122 2	59	.....	.....	.....	.....	57·8	+ 0·5	9	81·0	18	35·0	30	20·0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·70	−2 24	0·08	11	15	0	2	0
*Quesnelle	52 59	122 30	1700	.....	.....	.....	.....	56·5	—	.....	78 1	8	29·0	17	38 8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*Clayoquot	49 11	125 47	40	.....	.....	.....	.....	54·0	—	.....	75 0	6	37·0	30	19 1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4·57	—	1 33	9	21	0	0	1
*Cranbrook	49 30	115 50		.....	.....	.....	.....	48 4	—	.....	84 0	2	23·0	30	22 8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·28	—	0 65	5	25	0	0	0
Massett	53 58	132 9	30	.....	.....	.....	.....	51 1	—	.....	64 0	1	38 0	30	18 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2 60	—	0 30	15	15	0	0	0
Bullion	52 45	121 55		.....	.....	.....	.....	48 9	—	.....	73 0	19	27·0	30	23 8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2 94	—	0 73	11	19	0	0	7
Bella Coola	52 20	126 54	15	.....	.....	.....	.....	54·7	—	.....	88 0	17	29·5	30	24 4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0 50	—	0 18	4	27	0	0	0
Duncans	48 45	123 42	40	.....	.....	.....	.....	54 0	− 1·3	11	80·0	19	28 0	30	29 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 40	−1·02	0 50	7	23	0	0	0
Nelson	49 29	117 21		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Matsqui	49 7	122 18		.....	.....	.....	.....	54 8	+ 1·0	11	79 5	18	31 0	29	21 8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·71	−1·86	0·92	15	15	0	0	0
Okanagan Mission	49 52	119 29		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Alberni	49 15	124 49	300	.....	.....	.....	.....	55 7	—	.....	78 3	19	32 9	30	24 9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·18	—	0·77	9	15	0	0	0
Saturna Island	48 47	123 12	14	.....	.....	.....	.....	57 6	—	.....	74 0	1	45 0	26	14 9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 31	—	0 29	9	21	0	0	0
Kasio	49 29	117 0		.....	.....	.....	.....	52 8	—	.....	73 0	17	32 0	29	18 7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·40	—	0 27	12	18	0	0	0
Cape Scott	50 48	128 27		.....	.....	.....	.....	51 0	—	.....	68 5	19	33 6	29	16 9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·25	—	0 62	17	13	0	0	0
N.-W. TERRITORIES:																																								
Medicine Hat	50 1	110 37	2161	29 92	30 55	29 36	1·17	49 6	— 5 8	17	87 8	1	26 5	17	21 6	.....	.....	6	3	3	7	9	6	9	6	9	7	5	60	.....	17 0	15 NW	2·41	+1·23	0·50	10	18	0	2	2
Edmonton	53 33	113 30	2158	29 98	30 49	29 53	0 96	45 1	— 4 8	18	77 0	3	26 0	23	19 2	.....	.....	5	8	5	3	7	14	8	3	8	11	6	60	8·5	17 3	5 N	4 23	+2 90	1 13	15	14	0	0	1
Swift Current	50 20	107 45	2489	29 94	30 56	29 44	1·12	46 8	— 6 7	15	83 0	1	24 0	26	17 0	.....	.....	7	9	11	80	108	71	77	2	40	256	75	720	.....	24 0	5 SW	3 84	+2 62	1 48	14	12	1	1	3
Qu'Appelle	50 29	103 45	1745	29 94	30 54	29 38	1·16	46 5	— 5 2	18	78 0	3	25 0	23	17 6	.....	.....	7	8	4	6	12	6	6	6	5	13	2	60	.....	22 9	16 NW	4 17	+2 84	1 26	14	12	1	3	3
Calgary	51 2	114 2	3389	29 98	30 47	29 37	1·10	45 3	— 4 9	17	75 0	1	23 0	29	21 1	.....	.....	7	11	5	4	11	11	2	0	10	11	6	60	.....	22 0	5 NW	2·95	+1·59	0 71	15	15	0	0	1
Prince Albert	53 10	106 0	1432	29 95	30 60	29 54	1·06	46 2	— 3 1	16	80 0	1	26 5	23	18 0	.....	.....	7	14	4	6	7	2	0	0	1	4	36	60	7·6	18 0	5 N	2 81	+1 53	1 55	6	24	0	0	2
Battleford	52 41	108 20	1620	30 02	30 59	29 62	0·97	46 6	— 5 8	16	82 0	1	22 0	17	20 0	.....	.....	7	10	42	69	79	153	28	41	108	133	87	720	.....	19 8	15 NW	2 73	+1 48	0 94	13	11	2	1	3
Qonikup	58 30	101 20		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*aBanff	51 10	115 35	4542	30 02	30 60	29 30	1·30	42 9	—	.....	72 4	1	19 4	24	20 0	.....	.....	6	5	2	6	0	1	3	10	3	5	30	60	.....	III	6 NE	2·05	+0·38	0·43	16	14	0	1	0
Chaplin	50 27	106 40	2292	.....	.....	.....	.....	45 8	— 5·9	15	84 0	1	25 0	22	19 4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 08	+0·52	0 18	8	22	0	0	0
Moose Jaw	50 21	105 35	1745	.....	.....	.....	.....	46 0	—	.....	78 7	3	24 0	19	17 6	.....	.....	.....	.....	4	3	9	10	1	5	18	6	9	60	.....	.....	.....	2 85	—	0 80	15	14	1	4	1
Regina	50 27	104 37	1885	.....	.....	.....	.....	47 1	— 3·6	17	86 0	1	18 0	26	19 6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·27	+1 67	0 70	7	21	0	0	0
Indian Head	50 28	103 40	1924	.....	.....	.....	.....	46 4	— 5 6	12	81 0	2	22 0	28	18 9	.....	.....	.....	.....	5	13	12	28	2	7	2	21	0	90	.....	.....	.....	4 90	+4 04	1·80	6	23	0	0	0
Cannington Manor	49 43	102 2	2054	.....	.....	.....	.....	46 2	—	.....	68 9	2	22 0	26	21 9	.....	.....	.....	.....	3	14	9	4	2	7	4	11	6	60	.....	.....	.....	4 17	—	2·00	13	17	0	4	0

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PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, SEPTEMBER, 1901.

a. Barometer not reduced to Sea Level. • Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	PRESSURE. Mean reduced	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observed.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of the Dew point.	Mean relative Humidity.	Mean amount of Cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of hours.	VELOCITY OF WIND Mean miles per hour.	Highest day's velocity.	Date and direction from	PRECIPITATION. Amount.	Difference from Average.	Heaviest fall in month.	Days with .01 or more.	No. of Fair days	No. of Auroras.	No. of Thund. storms.	No. of Fogs.
	° ′	° ′		in.	in.	in.	in.	°	°		°		°																			in.	in.	in.					
ONTARIO—*(Continued.)*																																							
•North Bruce	44 23	81 25	....	....	....	....	....	60 1	+ 1·0	13	92 0	6	41·0	20		....	....	....	....	6	11	6	3	16	21	22	5	0	90	....	....	....	2·77	−0·25	0 84	10	20	0	0	0
Collingwood	44 30	80 15	....	....	....	....	....	57·7	—	1	82·5	7	32·5	19	18 4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·89	+0·34	0 90	12	24	0	0	0
Rocklyn	44 28	80 36	1339	....	....	....	....	57·7	—	1	82·5	7	32·5	19	18 4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·88	—	1·28	8	29	0	0	1
Whiteside	45 0	79 30	....	....	....	....	....	60 2	+ 3 2	18	82 5	6	35 0	19	19 5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·72	−0·72	0 55	14	16	0	1	2
Sprucedale	45 30	79 40	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Orillia	44 34	79 24	....	....	....	....	....	58·7	+ 0·6	10	81 0	6	32 0	17	20 9	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3·74	+0·80	1 60	7	23	0	0	0
Coldwater	44 38	79 40	....	....	....	....	....	57 4	− 0 2	15	81·1	6	28 2	25	24 0	....	....	....	....	1	4	1	10	1	11	8	19	5	60	....	....	....	2·83	−0 27	0 94	9	21	1	0	0
Beatrice	45 8	79 20	....	....	....	....	....	55 8	+ 0 8	25	82 0	6	29 0	19	21 4	....	....	....	....	4	6	0	6	9	11	3	12	45	90	I	V	16 sw	3·92	+0 38	1 45	9	21	0	4	0
Gravenhurst	44 54	79 20	770	....	....	....	....	57 6	+ 0 4	19	85 0	6	30 0	25	21 5	....	....	....	....	3	2	8	6	16	14	15	6	4	10	11	90	II	V	16 w	3·58	+0 06	0 89	12	17	1	0	0
Haliburton	45 1	78 28	....	....	....	....	....	57 5	+ 0·9	13	83·0	6	29 0	26	24 2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3·41	+0 27	1 14	15	15	0	2	0
•Point Clark	44 5	81 44	595	....	....	....	....	61 0	+ 1 1	30	90 0	4	44 0	20	—	....	....	....	....	3	0	35	6	2	0	28	14	3	2	0	90	IV	IX	16 w	1 94	−1 10	1 20	3	27	0	2	0
Birnam	43 2	81 55	....	....	....	....	....	61·4	+ 0 8	14	87 3	7	33 3	19	18 5	....	....	....	....	....	....	9	3	0	6	10	5	7	14	6	60	....	....	....	3·26	+0 28	1 60	7	21	0	2	2
London	42 59	81 13	808	30 04	30 45	29 51	0·94	61 3	+ 0·6	18	87 0	7	33·5	19	21·1	54 8	79	3	0	9	10	6	0	2	6	37	29	0	90	II	III	12 w	1 49	−1 26	0 44	8	19	0	1	0
Port Stanley	42 40	81 13	592	30 06	30 44	29 53	0·91	62 2	+ 1 2	27	84 2	3	34 8	19	17·2	....	....	5	2	31	38	115	68	8	129	185	98	48	720	8 6	....	....	2·57	−1 16	1 36	10	20	0	1	1
Woodstock	43 8	80 47	980	30 03	30 48	29 45	1·03	60 2	+ 1 1	26	84 0	15	34 8	19	18 8	56·4	87	5	3	166	18	23	19	176	15	172	7	124	720	6 0	16·5	15 w	3·47	+1 06	1 79	6	24	0	0	2
Port Dover	42 47	80 13	635	....	....	....	....	62 7	+ 1·4	25	86 3	7	34 6	19	16 7	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·59	+0 08	0 81	9	22	0	0	0
Pelee Island	41 50	82 38	....	....	....	....	....	64 9	− 0 6	22	77 5	15	50 0	19	9 0	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1 03	−1 05	0 38	4	26	0	0	0
St. George	43 14	80 12	722	....	....	....	....	60 6	+ 0 3	17	86 0	7	29 0	19	27 6	....	....	....	....	....	....	8	19	10	3	2	12	25	11	0	90	....	....	....	2 15	−0 05	0 53	10	2	0	0	0
Paris	43 12	80 25	840	....	....	....	....	61 7	+ 1 2	11	89 0	6	33 0	19	23 3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2 01	−0 70	0 50	10	2	0	0	0
St. Mary's	43 15	81 11	1040	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
•Biscotasing	47 32	82 8	....	....	....	....	....	50 6	—	4	82 0	4	33 0	13	—	....	....	....	....	13	6	3	10	30	15	6	5	2	90	....	....	....	....	....	....	6	24	0	0	3
Bloomfield	43 59	77 13	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Calvin	46 15	78 48	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Agincourt	43 47	79 16	....	....	....	....	....	60 4	—	5	88 0	8	34 0	19	21 2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2 42	—	0 78	6	23	0	2	0
Pickering	43 50	79 4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Hamilton	43 16	79 54	303	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Port Hope	43 56	78 20	....	....	....	....	....	62 1	—	5	86 0	4	35 0	18	18 7	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1 50	1 49	—	8	22	0	0	0
Kinmount	44 45	78 58	....	....	....	....	....	56 8	—	4	86 0	6	24 0	25	26 3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2 74	—	1 26	10	20	0	2	4
Cockburn Island	45 57	83 18	610	....	....	....	....	55 7	—	4	88 0	5	33 0	19	23 6	....	....	....	....	3	6	8	13	5	8	8	6	3	60	....	....	....	2 43	—	0 71	11	19	0	2	2
Chatham	42 23	82 12	595	....	....	....	....	62 8	+ 1·7	13	89 0	7	34 0	19	18 7	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2 63	+0 43	1 30	7	23	0	0	0
Dalhousie Mills	45 20	74 29	....	....	....	....	....	59 9	—	3	86 0	5	36 0	26	17 8	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3 26	—	0 87	7	23	0	0	0
Meaford	44 37	80 37	....	....	....	....	....	59 7	—	3	86 0	6	30 0	9	18 1	....	....	....	....	5	5	1	4	1	20	12	2	10	60	....	....	....	3 52	—	1 45	6	24	0	2	0
Ruthven	42 3	82 41	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Listowel	43 44	80 58	....	....	....	....	....	59·2	—	5	85·0	6	38 0	8	18·2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3 15	—	0 73	11	19	0	0	0
Bruce Mines	46 18	83 55	....	....	....	....	....	57 9	—	2	87 0	4	31 0	19	20 2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2 74	—	0 73	9	24	0	2	3
Rat Portage	49 48	94 32	1102	....	....	....	....	52·7	—	3	81 2	5	31·8	18	16·5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1 62	—	0 34	11	19	1	0	9
Dunnville	42 54	79 39	....	....	....	....	....	61 8	—	2	83 5	6	36 4	18	16 2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4 38	—	2 09	8	22	0	2	1
•Heron Bay	48 40	87 10	....	....	....	....	....	50 5	—	1	3 10	6	9 0	2	31 0	24	—	....	....	24	0	0	0	0	0	42	0	24	90	....	....	....	4 85	+1 64	1 25	8	22	0	0	1
Sturgeon Falls	46 16	79 54	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
QUEBEC:—																																							
Montreal	45 30	73 35	187	30·01	30·57	29·49	1·08	60 4	+ 1·9	27	83·0	6	36·9	26	15 0	....	77	....	....	64	52	60	24	19	69	290	129	13	720	11·9	21 6	23 w	3·95	+0·65	1 53	12	17	0	2	1
Richmond	45 40	72 8	435	....	....	....	....	58 3	+ 2 5	23	88 0	7	26 0	26	23 6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1 78	−1 44	0 62	7	23	0	1	3
Brome	45 10	72 36	....	....	....	....	....	56 0	+ 0·5	20	84 0	6	26 0	26	17 6	....	....	3	5	5	6	8	0	18	27	24	2	0	90	....	....	....	1 65	−2 07	0 50	7	22	0	1	0
Quebec	46 48	71 13	296	30 00	30 52	29 54	0·98	57 3	+ 1 7	27	82 8	6	32 0	25	17 7	....	6	5	6	127	20	13	0	283	217	51	3	720	11·4	25 3	16 sw	2 90	−0 77	1 64	11	19	1	2	2
Chicoutimi	48 25	71 5	150	....	....	....	....	55 0	+ 2 6	22	88 5	7	27 1	25	23 7	....	7	4	....	0	7	0	31	0	18	0	33	1	90	III	VIII	16 sw	2 74	−0·38	1 71	6	24	0	0	0
Father Point	48 31	68 19	20	29 95	30 46	29 38	1·08	50 2	+ 0 2	24	69 7	17	29 5	20	15 9	....	....	6	3	51	0	56	0	0	2	0	601	0	10	720	17·3	32·0	16 w	1 44	−1 69	1 11	6	24	0	0	0
Cape Chatte	49 6	67 45	....	....	....	....	....	52 7	+ 1 1	11	67 0	16	39 0	26	—	....	....	....	....	1	0	10	0	0	21	22	8	28	9	....	....	....	1 17	−1 49	0 52	6	24	0	0	1
Riquette	48 25	68 53	....	....	....	....	....	46 7	− 0·6	19	56 0	1	39 0	21	—	....	....	....	....	0	76	0	0	2	18	31	16	7	90	....	....	....	0 10	—	0 10	1	3	0	0	12
•Cape Magdalen	49 16	65 20	....	....	....	....	....	52 6	+ 1·2	19	67 0	6	40 0	26	—	....	....	....	....	5	1	2	3	19	1	4	43	12	90	....	....	....	1 95	−0 17	0 67	9	21	0	0	1
Anticosti, W. Pt	49 52	64 32	....	....	....	....	....	52·9	+ 2·6	14	64 0	16	36 0	26	—	....	....	....	....	13	5	5	6	14	5	11	31	0	90	....	....	....	2 63	+0 36	1 51	10	20	0	0	5
Anticosti, S.W. Pt	49 24	63 35	30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Abitibi	48 43	79 22	....	....	....	....	....	54 1	—	6	83 0	5	30 0	25	16 0	....	....	....	....	6	0	0	0	19	5	19	15	26	90	II	V	16 sw	1 69	—	0 62	9	21	0	0	1
•Anticosti, E. Pt	49 6	61 42	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Bird Rocks	47 51	61 8	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sherbrooke	45 24	71 55	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Percé	48 31	64 12	50	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

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OBSERVATIONS AT STATIONS REPORTING RAIN, WEATHER &c., DURING SEPTEMBER, 1901.

STATIONS.	Rainfall.					Snowfall.				Remarks.
	Amount in inches.	No. of Days '01 or Over.	No. of Fair Days.	Heaviest Fall in Month.	Date.	Amount in inches.	No. of Days.	Heaviest Fall in Month.	Date.	
	in.			in.		in.		in.		
British Columbia—										
Goldstream Lake	1·82	10	20	0·45	5					
Kuper Island	1·92	11	19	0·56	25					Frost 30.
Coquitlam	3·66	8	7	1·40	12					
Naas Harbour	6·39	15	15	1·15	25					
Caulfields	3·90	8	21	1·07	20					11, humming birds.
Royal Oak	1·16	6	24	0·34	20					
Vancouver	2·64	9	21	0·83	21					
Nanaimo	1·65	6	24	0·80	25					
Port Essington	5·64	14	16	0·87	26					Thunder 26.
N. W. Territories—										
Regina	3·40	12	14	1·23	27	11·0	2	6·0	22	Thunder 12, frost 15.
Saltcoats	1·40	4	22	0·60	14	9·0	4	6·0	23	Cool wet month.
Innisfail	3·20	7	22	1·37	5	0·3	2	0·3	23	
Weyburn	3·29	12	18	0·67	22	2·0	2	2·0	25	Thunder 2, 3, 4, 13, 24.
Coutts	1·96	10	20	1·27	7					
N.E. Beaver Hills	5·17	13	16	1·55	5	6·0	2	6·0	22-23	Thunder 3, first frost 6.
Strathcona	3·44	13	15	1·41	5	8·0	2	8·0	22 23	Thunder 1,3,8, first frost 6.
Dirt Hills	2·75	10	19	0·47	26	10 0	3	4·0	22	Thunder 2, 4, 12, 15.
Broomhill	2·72	7	22	0·61	1	2·5	2	2·5	22	1, heavy thunder with hail.
Northern	5·26	6	22	2·61	4	7·0	3			Thunder 2.
Manitoba—										
Clearspring	2·18	10	19	0·60	16					Thunder 4, 13, 26.
Norquay	3·00	13	16	0·73	25	*	2			Thunder 4, 14, 27.
Beaver	2·94	8	22	0·95	24					
Belmont	2·22	9	21	0·58	29					Thunder 4, 26.
Cartwright	2·36	9	21	0·62	14					Thunder 4.
Oakbank	3·89	9	16	0·93	15					Thunder 24.
Oak Lake	5·14	7	24	2·73	25					Thunder 4, 18, ice ¾ inch.
Morden	2·91	6	22	0·76	11					Thunder 28.
Pembina Crossing	2·71	6	24	0·65	29					Thunder 4, 24, 29.
Ontario—										
Uxbridge	2·37	7	23	0·87	29					
Dealtown	1·44	6	24	0·58	11					Frost 18, 19.
Nottawasaga Island	2·20	5	25	1·00	29					Fog 29.
Wiarton	3·47	8	22	0·86	17					Thunder 14, 16, 17, 26, 29.
Dutton	2·04	6	23	0·90	11					Thunder 9, frost 17, 18.
Sunshine	2·52	10	20	0·82	30					Thunder 10.
Watford	2·66	6	24	0·83	11					
Lion's Head	2·78	8	22	0·75	10					Thunder 26, 27.
Orangeville	3·53	7	23	1·51	29					
Aurora	2·04	9	21	0·84	30					Thunder 10.
Oliver's Ferry	4·70	5	25	3·00	29					
Midland	3·04	10	20	0·96	29					Thunder 17 (heavy hail) 26.
Port Burwell	2·40	6	24	1·40	13					
Emsdale	3·48	12	18	1·31	10					Thunder 15, 16.
Westport	4·78	7	23	2·77	29					Frost 8, 9, 10, thunder 15, 16
Jermyn	1·68	6	24	0·43	12					Thunder 12, 15.
Parma	3·84	8	22	0·97	30					
Wooler	2·89	9	21	1·18	29					Frost 9, thunder 11, swallows gone 16.
Croydon	3·05	5	25	1·25	29					
Arden	3·28	11	19	0·72	30					
N. Williamsburg	2·78	9	21	1·50	11					
Huntsville	3·48	9	21	1·70	11					
Mortague	3·64	7	23	1·57	29					
Ursa	2·60	9	21	0·78	12					Thunder 7, 16.
Wyoming	2·63	4	26	1·50	12					
Kitley	2·31	8	22	1·36	29					26, ground frozen.
Goderich	1·55	4	26	0·50	29					
Scarborough	2·28	4	25	0·86	12					Thunder 10, 12, 15.
Lansdowne	0·61	2	28	0·40	15					
Georgetown	2·91	11	18	0·82	15					Thunder 10, 12, 15.
Cayuga	3·13	6	24	0·72	1					
Elgin	3·61	6	24	1·80	29-30					
Missanabie	3·40	13	17	0·40	12	0·5	1	0·5	27	
Ennismore	1·55	4	26	1·00	12					
Deer Park	2·70	6	24	0·88	29					
Westminster	2·10	8	22	0·75	11					
Princeton	2·10	6	24	1·00	11					Thunder 20.
Providence Bay	2·86	10	20	1·53	11					
New Brunswick—										
Point Escuminac	1·45	8	22	0·51	8					Thunder 16, 30.
Nova Scotia—										
Port Morien	3·35	4	26	1·50	21					

PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY DURING WHICH THE SUN WAS ABOVE THE HORIZON IN THE MONTH OF SEPTEMBER, 1901.

	Hours Ending															
	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.
Victoria		0·00	0·11	0·41	0·55	0·64	0·70	0·76	0·77	0·77	0·73	0·65	0·64	0·25	0·00	
Nanaimo		0·00	0·24	0·52	0·64	0·59	0·67	0·68	0·65	0·69	0·73	0·69	0·65	0·39	0·05	
Agassiz		0·00	0·00	0·04	0·21	0·37	0·34	0·42	0·46	0·49	0·40	0·40	0·20	0·03	0·00	
Battleford		0·17	0·33	0·35	0·41	0·41	0·38	0·31	0·35	0·39	0·37	0·26	0·20	0·10	0·00	
Indian Head		0·00	0·00	0·02	0·19	0·31	0·32	0·37	0·34	0·44	0·36	0·23	0·13	0·03	0·00	
Brandon		0·11	0·24	0·31	0·40	0·49	0·50	0·51	0·52	0·48	0·43	0·22	0·05	0·00	0·00	
Winnipeg		0·03	0·25	0·38	0·52	0·48	0·51	0·57	0·57	0·57	0·55	0·45	0·36	0·10	S	
Durham																
Woodstock		0·00	0·07	0·29	0·53	0·58	0·60	0·65	0·72	0·74	0·74	0·65	0·52	0·15	0·01	
Toronto		0·00	0·06	0·48	0·65	0·67	0·68	0·67	0·64	0·69	0·70	0·67	0·62	0·36	0·03	
Lindsay		0·00	0·27	0·41	0·59	0·59	0·63	0·65	0·72	0·71	0·67	0·55	0·54	0·41	0·10	
Barrie		0·00	0·24	0·55	0·65	0·65	0·65	0·65	0·63	0·65	0·71	0·66	0·54	0·23	0·00	
Kingston		0·10	0·50	0·67	0·69	0·63	0·67	0·70	0·72	0·68	0·62	0·43	0·11	0·00	0·00	
Ottawa		0·00	0·08	0·47	0·62	0·66	0·72	0·71	0·71	0·65	0·69	0·69	0·53	0·20	0·00	
Montreal		0·00	0·13	0·43	0·58	0·71	0·73	0·75	0·74	0·72	0·66	0·65	0·46	0·00	0·00	
Fredericton		0·08	0·41	0·56	0·62	0·70	0·71	0·72	0·70	0·68	0·67	0·58	0·25	S	0·00	

	Victoria.	Nanaimo.	Agassiz.	Battleford.	Indian Head.	Brandon.	Winnipeg.	Durham.	Woodstock.	Toronto.	Lindsay.	Barrie.	Kingston.	Ottawa.	Montreal.	Fredericton.
Mean proportion for month (*Constant sunshine being 1.*)	0·56	0·57	0·27	0·32	0·22	0·34	0·42		0·49	0·58	0·55	0·54	0·51	0·54	0·60	0·54
Difference from average	+ 0·12	–	– 0·04	– 0·17	– 0·20	– 0·15	– 0·05		0·00	0·00	+ 0·02	+ 0·06	0·00	—	+ 0·06	+ 0·06
Maximum daily amount	0·90	0·22	0·70	0·96	0·67	0·85	0·92		0·90	0·89	0·95	0·90	0·80	0·89	0·95	0·88
Date	29	5	28	17	8	7	1		4	22	23	25	26	25	8	24
No. of days completely clouded	1	4	12	8	13	8	5		2	1	3	3	4	4	2	2

Thunder recorded on :—

1. Swift Current, Strathcona, Broomhill.

2. Moose Jaw, Calgary, Alameda, Red Deer, Crescent Lake, Manor, Gatesgarth, Barnardo, Weyburn, Dirt Hills, Northern.

3. Alameda, Red Deer, Crescent Lake, Manor, Weyburn, Strathcona, Hillview, Channel Island.

4. Tobacco Plains, N. Nicomen, Alameda, Crescent Lake, Manor, Qu'Appelle, Minnedosa, Clearspring, Norquay, Weyburn, Dirt Hills, Hillview, Channel Island, Pembina Crossing, Oak Lake, Belmont.

5. Minnedosa, Yarmouth, Pipestone..

7. Montreal, Quebec, Brome, Pictou, Ursa, Otonabee, Clontarf.

8. Truro, Summerside, Strathcona.

9. Moose Jaw, Coldwater, Qu'Appelle, Dutton, Stony Creek.

10. Moose Jaw, Stratford, Battleford, Toronto, Sunshine, Aurora, Scarboro, Georgetown, Brantford, Erasmus, Beatrice, Port Dover, Bowsman.

11. Princeton, (B.C.), Moose Jaw, Lindsay, Bermuda, Wooler, Clontarf.

12. Crane Lake, London, Guelph, Stratford, Port Stanley, Medicine Hat, Toronto, Regina, Dirt Hills, Scarboro, Georgetown, Stony Creek, Otonabee, Brantford, Birnam, Agincourt, Dunnville, Ridgetown.

13 Alameda, Medicine Hat, Halifax, Yarmouth, Summerside, Clearspring, Weyburn, Deer Park, Lucknow, Bowsman, Treherne.

14. Princeton, (B.C.), Charlottetown, Norquay, Port Simpson.

15. Lindsay, Bermuda, Dirt Hills, Wiarton, Emsdale, Westport, Jermyn, Scarboro, Georgetown, Toronto, Beatrice, Cockburn Island, Meaford, Bruce Mines, Lucknow, Owen Sound.

16. Montreal, Quebec, Parry Sound, Grand Manan, Wiarton, Emsdale, Westport, Ursa, Point Escuminac, Clontarf, Haliburton, Bala, Birnam, Beatrice, Meaford, Kinmount.

17. Wiarton, Midland.

20. Princeton, (Ont.), Stony Creek, Brantford.

22. Aweme.

23. Parry Sound, Treherne.

24. Alameda, Crescent Lake, Manor, Gatesgarth, Stony Mountain, Qu'Appelle, Winnipeg, Weyburn, Dirt Hills, Hillview, Aweme, Pembina Crossing.

25. Stony Mountain, Minnedosa, Lakefield, Hillview.

26. Clearspring, Lion's Head, Midland, Haliburton, Beatrice, Cockburn Island, Bruce Mines, Kinmount, Port Essington, Aweme.

27. Port Arthur, Norquay, Lion's Head.

28. N. Nicomen, Port Arthur, Morden.

29. Richmond, Hillview, Pembina Crossing.

30. Pipestone.

Aurora recorded—

Where the class of aurora is noted by the observer, it is given (I) being the brightest, (IV) the feeblest in brilliancy.

9. Savanne.

10. Quebec, IV ; Cape Chatte, II ; Moose Jaw ; Estevan, III ; Qu'Appelle, IV ; Swift Current, IV ; Grand Manan, IV ; Strathcona, II ; Savanne ; Bowsman, IV, Rat Portage.

11. Athabasca Landing, III ; Red Deer, III ; Battleford, II ; Winnipeg, IV.

12. Athabasca Landing, III ; Battleford, III ; Channel Island, III.

15. Gravenhurst, IV.

16. Athabasca Landing, IV ; Red Deer, II, Truro, IV ; Strathcona, III ; Georgetown, III ; Clontarf, III ; Bowsman, IV.

17. Bowsman, IV.

FORECASTS FOR SEPTEMBER, 1901.

The forecasts issued by this office at 11 p m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of predictions issued during the month was 1043. These were divided as follows :—

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Percentage
Manitoba	91	72	10	9	84·6
Lake Superior	106	84	16	6	86·8
Lower Lake Region	111	98	6	7	91·0
Georgian Bay	111	100	5	6	92·3
Ottawa Valley	103	92	7	4	92·7
Upper St. Lawrence	103	92	7	4	92·7
Lower St. Lawrence	102	85	11	6	88·7
Gulf	102	89	7	6	90·7
Maritime Provinces, West	107	91	10	6	89·7
Maritime Provinces, East	107	88	13	6	88·3
Total	1,043	891	92	60	89·8

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used.

R. F. STUPART,
Director.

Meteorological Office, Toronto,
26th October, 1901.

MONTHLY and Annual Summaries from August 1900, to July 1901, Belle Isle, Newfoundland—Latitude, N. 51° 53′; Longitude, W. 55° 22′. Height above Sea, 436 feet.

MONTH.	PRESSURE at 32.			TEMPERATURE.								RELATIVE HUMIDITY				PRESSURE OF VAPOUR.				CLOUDINESS.				PRECIPITATION.	
		Extremes.		Mean.						Extremes.															
	Monthly Mean.	Max.	Min.	8 a.m.	3 p.m.	8 p.m.	Max.	Min.	Mthly	Max.	Min.	a.m.	p.m.	p.m.	Mean.	a.m.	p.m.	p.m.	Mean.	8 a.m.	3 p.m.	8 p.m.	Mean.	Total.	Maximum in any 24 hours.
	in.	in.	in.	°	°	°	°	°	°	°	°					in.	in.	in.	in.	%	%	%	%	in.	in.
August — 1900	30·136	30·59	29·86	50·1	50·9	49·1	53·6	47·7	50·7	61·0	40·0									66	51	48	55	2·13	1·01
September "	30·022	30·54	28·88	42·7	44·3	42·3	45·8	40·2	43·0	54·0	32·0									67	56	50	58	5·30	2·88
October "	29·855	30·45	29·21	34·7	36·2	34·8	37·9	32·7	35·3	48·0	23·0									59	55	50	55	1·82	0·60
November "	29·298	29·97	28·75	25·2	28·8	25·5	31·9	22·1	27·0	43·0	6·0									49	58	56	54	2·72	2·40
December "	29·189	29·56	28·55	13·4	17·7	14·7	21·2	10·2	15·7	31·0	— 3·0									58	57	61	59	0·95	0·30
January — 1901	29·214	29·87	28·16	8·3	10·8	9·9	15·4	3·8	9·6	39·0	—21·0									53	61	60	58	2·57	1·02
February "	28·829	29·54	28·13	26·6	29·3	26·6	32·4	23·0	27·7	39·0	— 5·0									80	81	83	81	3·31	1·40
March "	29·344	29·99	28·53	19·7	23·7	21·8	27·5	16·2	21·9	39·0	—14·0									79	75	74	76	1·43	0·40
April "	29·696	30·08	28·99	29·0	35·2	31·0	37·5	26·2	31·9	43·0	17·0									45	46	50	47	0·01	0·01
May "	29·406	29·69	29·01	34·1	40·7	36·3	43·0	32·1	37·6	49·0	26·0									61	60	60	60	0·14	0·06
June "	29·369	29·60	28·73	38·3	47·1	42·3	49·9	36·7	43·3	61·0	31·0									70	69	72	70	0·11	0·04
July "	29·258	29·55	28·77	42·4	50·7	45·1	53·8	40·2	47·0	66·0	33·0									72	70	67	70	0·76	0·19
Year	29·467	30·59	28·13	30·4	34·6	31·6	. . . . .		32·5	66·0	—21·0									63	62	61	62	21·25	2·88

MONTH.	NUMBER OF WINDS FROM									Average Hourly Velocity.	Maximum Velocity.	Direction at time of Maximum Velocity.	No. of Gales.	NUMBER OF DAYS										
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.					Clear.	Partly Cloudy.	Cloudy.	Precipitation 01 in. or over.	Snow.	Hail.	Fair.	Fog.	Thunder Storms.	Lightning Alone.	Aurora.
August — 1900	9	20	10	19	6	11	24	12	0	13·2	30·0	N.E.	3	9	8	14	10	0	0	21	10	0	0	0
September "	14	14	5	2	7	1	42	5	0	21·6	80·0	N.E.	14	8	7	15	6	0	0	22	12	0	0	0
October "	23	15	1	8	3	9	13	21	0	19·4	39·0	W.	12	11	7	13	7	5	0	20	13	0	0	3
November "	19	12	9	2	3	5	27	13	0	22·5	61·0	W.	15	10	7	13	5	5	0	22	5	0	0	7
December "	16	25	10	1	1	8	14	18	0	18·5	39·0	S.E.	15	11	4	16	4	8	0	23	1	0	0	9
January — 1901	17	2	4	12	8	4	20	26	0	23·8	49·5	W.	18	11	3	17	9	5	0	21	9	0	0	10
February "	6	8	17	16	4	7	20	6	0	24·0	49·5	W.	19	3	4	21	16	18	0	10	16	0	0	4
March "	28	8	14	16	9	3	12	3	0	22·6	49·5	N.	24	5	4	22	8	8	0	21	12	0	0	4
April "	19	11	23	7	3	2	22	3	0	16·7	49·5	N.E.	9	13	6	11	1	2	0	28	4	0	0	10
May "	15	16	9	14	6	6	18	9	0	17·0	49·5	N.E.	12	12	1	18	5	0	0	26	11	0	0	3
June "	27	8	7	6	4	7	25	6	0	19·0	49·5	N.	13	7	3	20	6	0	0	24	9	0	0	4
July "	16	5	7	4	4	21	36	0	0	16·4	39·0	W.	11	7	5	19	12	0	0	18	17	0	0	4
Year	209	144	116	89	58	84	273	122	0	19·6	61·0	W.	166	107	59	199	89	51	0	256	119	0	0	58

METEOROLOGICAL SERVICE, DOMINION OF CANADA.

Monthly Weather Review.

VOL. XXV OCTOBER, 1901. No. 10

INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm signal agents. For the material used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

REMARKS UPON THE WEATHER.

The weather of October throughout Canada, with some local exceptions, was unusually warm, the temperature being above average at nearly all places. The precipitation which consisted partly of snow was generally below the average, excepting in Quebec, where on the contrary, it was above. Added to these exceptional conditions was an unusually large proportion of bright sunshine, which, with few exceptions, extended from the Atlantic to the Pacific coasts. This fine weather though exceedingly favourable for autumn ploughing, was in some districts harmful to fall wheat, owing to insufficient moisture. Hard frosts were general, and by the 31st most trees were denuded of leaves.

In British Columbia the weather was generally fine, mild and dry, the temperature and proportion of bright sunshine being above average and the precipitation somewhat below. Moderate gales occurred on the coast during the last three days, but with these exceptions, there were few high winds. Frosts occurred in many districts, and snow was recorded on the mainland late in the month. By the 31st, the trees were almost bare in some localities.

The weather in the North-west Territories was unusually mild and somewhat drier than usual, the temperature being considerably above average in most districts and the precipitation below. There were many fine clear days and altogether the proportion of bright sunshine was exceptionally large. Frosts were rather frequent at night, but during the day the temperature often rose to between 60° and 70°, and at most places the maximum temperatures of the month were between 70° and 78°. This exceptional weather was most favourable for all agricultural work, but some loss was caused by fire in the dry rank herbage of the prairies. Most migratory birds, excepting ducks and geese had gone south, and the trees were bare of leaves by the 31st.

The fine mild and dry weather of the Territories was also enjoyed in Manitoba, where the conditions were very similar. In most districts showers were rather more frequent during the first half of the month, but during the second half of the month the weather was exceptionally fine. On or about the 22nd, a temperature of 78° was recorded at several places, and at all stations the maximum temperature of the month exceeded 70°. By the 31st, the trees were denuded of leaves throughout the Province.

In Ontario the weather was somewhat finer and warmer than usual, and in most districts it was exceptionally dry, the mean temperature being a little above average and the precipitation considerably below. The only marked exceptions to be found were at a few places in northern and north-western districts where these conditions were reversed. The proportion of bright sunshine was also much in excess in the western half of the Province, and everywhere it exceeded the average. Frosts were general but in most localities they were not severe, and on the 31st, many wild and cultivated plants were still in bloom, and in the southern portion some trees still retained their leaves.

The weather in the Province of Quebec was unusually fine and somewhat warmer and wetter than usual, both the mean temperature and precipitation exceeding the average. Heavy gales were reported from the Lower St. Lawrence and Gulf on the 18th and 24th, and from the Upper St. Lawrence on the 10th. Frosts occurred throughout the Province, and snow fell upon several occasions, nevertheless many plants were still quite green on the 31st.

In New Brunswick the weather throughout the greater part of the month was fine, mild and dry, the temperature being a little above the average and the precipitation below. Gales occurred on the 18th, 19th and 24th, the highest velocity reported being 40 miles per hour. Light snow was recorded at most places and frosts were general. These signs of approaching winter were later than usual and in many districts some trees and smaller plants were quite green on the 31st.

The weather conditions in Nova Scotia were very similar to conditions in New Brunswick, the mean temperature being generally above average and the precipitation below. Frosts occurred occasionally at night but the days were warm and there was much bright sunshine. A gale was reported from Low Point on the 19th, when a velocity of 45 miles per hour was recorded. After the 15th, the signs of approaching winter were more apparent, the trees shedding their leaves and plants withering, nevertheless, many plants were green on the 31st, and some flowers were still in bloom.

In Prince Edward Island the weather was also similar to that referred to in the last two mentioned Provinces, it being almost continually fine, mild and dry, with very little frost. Few important high winds occurred and altogether the conditions were most favorable for the agricultural and fishing industries.—F. F. Payne.

ATMOSPHERIC PRESSURE.

Atmospheric pressure was just about the average in the far northern parts of Ontario, and in northern Quebec, also in the Qu'Appelle Valley and to the northward of it, but in all the remaining portions of Canada it was generally from ·01 to ·05 of an inch above the average.

HIGH AREAS.

Of seven high areas during the month, five first appeared near the North Pacific coast or extreme portions of the North-west Territories and moved in south-easterly directions; one appeared to the north of Manitoba, moved to the northward of the Lake Region, thence southward and off the Middle Atlantic coast; and one appearing to the northward of Lake Superior moved eastward to Labrador and Newfoundland. None of the areas were accompanied by abnormally low temperature, nor were any of them of a decidedly pronounced type.

LOW AREAS.

No. 1 was an area of small diameter which passed across Lake Superior on the 1st, giving rain, followed by a heavy north-westerly gale on the east end of the lake; it passed quickly over Northern Ontario and Quebec, accompanied by local thunderstorms, and then dipping southward, was attended during the 4th, while over the Maritime Provinces by a general rain. No. 2 was a very shallow area, and between 1st and 3rd, passed across the Southern States to Bermuda. No. 3 was shallow, and of small dimensions, passing from the Canadian North-west Territories to the New England coast between the 4th and 6th; while over the Ottawa and Upper St. Lawrence Valleys during the 5th, it was attended by strong winds and rain. No. 4 was shallow, and its course chiefly across the Western and North-west States; it, however, passed into the Lake Region on the 9th, and heavy rain fell in Northern Ontario on that and the following day. No. 5 appeared in the Lower Mississippi Valley early on the 12th, and moved quickly in a northerly course, passing across Michigan that same night, and then to James Bay. Rain and gales were heavy during the night of the 12th on the Georgian Bay, Lake Huron, and east end of Lake Superior, and moderate gales and light rain were general in other parts of the Lake Region. No. 6 was very shallow, and moved quickly up to the Atlantic coast during the 14th; early on the 15th it was accompanied by rain and strong winds in the Bay of Fundy and near the Gulf of St. Lawrence. No. 7, a very shallow area which passed quickly across Northern Canada between the 13th and 15th. No. 8. A rapidly moving area which passed near Bermuda early on the 17th, and thence northward; rain fell generally in the Maritime Provinces during the night, and by the morning the storm centre was in the Gulf of St. Lawrence, and moderate gales were prevalent; it then appears to have developed rapidly as it passed away to the northward, and very heavy westerly gales prevailed in the Gulf. No. 9 was shallow throughout its course; it appeared in the far north-west on the 16th, and was unaccompanied by any rain until reaching Ontario on 19th, when heavy showers occurred in both that province and in Quebec. No. 10 was one of the important areas of the month; it moved south-east from Hudson's Bay, and was centred in Northern Quebec early on the 23rd; it then passed slowly eastward across the Gulf. Fresh westerly gales were general in the Lake Region and St. Lawrence Valley during the 23rd, and moderate gales were fairly prevalent in the Maritime Provinces. No. 11. A shallow depression which between the 24th and 27th passed from Alberta to the Gulf of St. Lawrence. No 12 was a deep depression, accompanied by fair warm weather over the North-west Territories during the 29th and 30th. During the 31st it was passing eastward north of the Lake Region with diminishing energy.

WINDS.

In British Columbia, on the west coast Vancouver Island and in the Straits, there were moderate gales during the last three days of the month, otherwise the general conditions were light to moderate variable winds.

In the North-west Territories and Manitoba, the westerly was oftener experienced than any other direction, and on twenty-two days, the force of a fresh wind was attained, increasing on several occasions, to a strong breeze or a moderate gale.

In the Lake Region, the Ottawa Valley and the Upper St. Lawrence districts, the westerly direction predominated; fresh to strong breezes were very frequent, and on the Lakes the force of a gale was reached on the 2nd, 12th, 15th, 19th and 23rd.

In the Gulf of St. Lawrence the direction was westerly on twenty days; fresh to strong winds were of almost daily occurrence, increasing to gales on the 3rd, 18th to 20th, 23rd to 24th, and 27th to 28th.

In the Maritime Provinces the direction was westerly on twenty-six days; on eleven days the winds were fresh, on five strong, and on the 3rd, 18th and 23rd, moderate gales were experienced. The storms of the month were all successfully warned, but a warning issued on the 12th to St. Lawrence and ocean ports, and another one on the 26th to stations in the Gulf of St. Lawrence, were not justified by subsequent gales.

Besides the storms on the Lakes already mentioned, Lake Superior ports report a moderate gale to have occurred on the 31st; this storm was also amply warned.

TEMPERATURE.

The mean temperature of October was higher than average throughout the Dominion, except, perhaps, in the outlying northern districts of Ontario and Quebec, and in a few localities in Western Ontario. From Lake Superior westward to the Pacific the departure exceeded 3°, and from Lake Superior eastward to the Maritime Provinces it was very generally between average and 3° above. The greatest departures, some 6° or 7° above average, occurred in Southern Alberta and Western Assiniboia.

The Highest and Lowest temperatures in each Province during September, 1901, were:

British Columbia,	80°·0 on 3rd at Princeton.	23°·0 on 4th at Cranbrook.
North-west Territories,	83°·0 on 20th at Athabasca Landing.	0°·6 on 31st at Kneehill.
Manitoba,	78°·9 on 24th at Brandon.	15°·0 on 10th at Bowman.
Ontario,	80°·0 on 10th at Cottam.	7°·4 on 18th at White River.
Quebec,	72°·5 on 13th at Chicoutimi.	18°·0 on 29th at Brome.
New Brunswick,	72°·0 on 1st at Bathurst.	16°·0 on 29th at Sussex.
Nova Scotia,	77°·0 on 17th at Halifax.	17°·0 on 29th at Truro.
Prince Edward Island.	70°·0 on 1st at Summerside.	28°·8 on 21st at Charlottetown.

PRECIPITATION.

The precipitation has been for the most part light, and in Southern Ontario and also in Manitoba and the North-west Territories particularly so, being less than one inch. The only portions of the Dominion where the average was reached or slightly exceeded were Southern and Eastern Nova Scotia, nearly the entire Province of Quebec, and portions of Ontario lying north of Lakes Huron and Superior; nowhere were any exceptionally heavy amounts recorded. Flurries or light falls of snow occurred locally in all the provinces except the lower levels in British Columbia.

BRIGHT SUNSHINE.

Sunshine was either equal to or in excess of the average throughout the Dominion. The largest recorded percentage of the possible amount was 65 at Battleford, Sask.; Brandon, Man., recorded 55 per cent, and in Ontario: Toronto, Woodstock and Kingston, recorded respectively 53, 50 and 49. In British Columbia: Victoria, Nanaimo and Agassiz, report respectively 40, 42 and 30 per cent of the possible amount, each being a little in excess of the average.

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, OCTOBER, 1901.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	PRESSURE. Mean reduced.	PRESSURE. Highest.	PRESSURE. Lowest.	PRESSURE. Range.	TEMPERATURE. Mean.	TEMPERATURE. Difference from average.	TEMPERATURE. Years observt.	TEMPERATURE. Highest.	TEMPERATURE. Date.	TEMPERATURE. Lowest.	TEMPERATURE. Date.	TEMPERATURE. Mean daily range.	Mean temperature of Dewpoint.	Mean relative Humidity.	Mean amount of Cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM. N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of hours.	VELOCITY OF WIND. Mean miles per hour.	Highest day's velocity.	Date and direction from	PRECIPITATION. Amount.	Difference from Average.	Heaviest fall in month.	Days with .01 or more	No. of Fair days.	No. of Auroras.	No. of Thunder storms.	No. of Fogs.
	° ′	° ′	′	in.	in.	in.		°	°		°		°		°	°																	in.	in.	in.					
BRITISH COLUMBIA:																																								
Victoria	48 21	123 19	85	30·04	30·59	29·55	1·04	54 4	+ 5·1	10	69·0	22	44·2	16	12·2	.....	.....	6	12	179	92	70	56	69	131	63	16	68	744	5·2	17 5	29 SW	1·45	−0·72	0 63	10	18	0	0	2
Barkerville	53 2	121 35	4180	29·94	30 51	29 25	1·26	43 6	+ 5·5	13	66·0	3	24·0	28	17·6	.....	.....	5	8	0	0	0	0	5	3	0	0	54	62	.....	14·0	21 S	2 26	−1·04	0 48	9	21	1	0	0
Agassiz	49 14	121 31	52	.....	.....	.....	.....	55 2	+ 6·2	11	76·0	23	36·0	14	29·6	.....	.....	3	2	12	0	0	0	51	0	30	0	0	93	.....	.....	.....	4 15	−2·55	1·42	11	20	0	0	0
Port Simpson	54 34	130 26	20	.....	.....	.....	.....	.....	.....		.....		.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Spence's Bridge	50 23	121 20	770	.....	.....	.....	.....	.....	.....		.....		.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hazelmere	49 3	122 43	.....	.....	.....	.....	.....	.....	.....		.....		.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Revelstoke	51 0	118 6	1476	.....	.....	.....	.....	.....	.....		.....		.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kamloops	50 41	120 29	1193	.....	.....	.....	.....	.....	.....		.....		.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Princeton	49 29	120 29	1650	.....	.....	.....	.....	47·9	—		78 0	3	23·0	28	36·4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pilot Bay	49 26	116 55	.....	.....	.....	.....	.....	.....	.....		.....		.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rivers Inlet	51 39	127 19	20	29·97	30 58	29 34	1·24	52 0	—		77 0	9	37 1	31	9 8	49 8	95	7	9	1	0	1	13	0	6	2	0	69	93	I	III	20 SE	18·13	—	3·47	20	11	0	1	0
Stuart's Lake	54 28	124 12	1800	.....	.....	.....	.....	.....	.....		.....		.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
French Creek	49 20	124 36	.....	.....	.....	.....	.....	51 1	+ 4·2	9	72 0	2	34·0	15	17·6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Coldstream	50 14	119 15	1246	.....	.....	.....	.....	.....	.....		.....		.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nanaimo	49 10	123 57	.....	.....	.....	.....	.....	52 1	—		69·8	2	36·4	16	15·3	50·2	91	6	10	2	5	13	15	6	7	3	4	38	93	II	17·3	31 SE	2·51	—	0·72	12	18	0	0	9
Chilliwack	49 10	121 57	21	.....	.....	.....	.....	51 9	—		66·4	21	24·0	30	11·4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12·18	—	2·05	17	13	0	0	0
Quatsino	50 32	128 3	.....	29·99	30 46	29·54	0·92	54 1	—		78·1	2	36·0	12	17·6	50·4	92	5	1	1	2	42	5	12	9	14	1	0	86	.....	.....	.....	4 50	—	0·74	13	18	0	0	4
Midway	49 0	118 46	1800	.....	.....	.....	.....	.....	.....		.....		.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Enderby	50 32	119 7	1180	.....	.....	.....	.....	.....	.....		.....		.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nicola Lake	50 9	120 39	2120	.....	.....	.....	.....	48·0	—		70·5	18	26·0	28	26·0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·22	−0·79	0·07	6	25	0	0	0
West Kootenay	49 20	117 50	.....	.....	.....	.....	.....	46·6	—		66·0	3	28·0	2	23·6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0·92	—	0·41	8	23	0	0	23
Garry Point	49 21	123 17	.....	.....	.....	.....	.....	51 1	—		68·0	21	31·0	15	15·1	.....	.....	.....	.....	2	5	35	6	4	1	9	13	18	93	6·4	28·0	.....	3 35	—	1·15	11	29	0	0	11
Tobacco Plains	49 1	115 5	2300	.....	.....	.....	.....	45 8	—		66·8	20	24·0	13	31·2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0 63	—	0 28	7	24	0	0	2
Vancouver	49 17	123 5	195	.....	.....	.....	.....	53 0	—		68·9	24	35·0	1	15·0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5 20	—	1·29	16	15	0	0	9
New Westminster	49 13	122 54	330	30·06	30 54	29 62	1·02	54 2	—		72·0	2	38·5	16	14·2	.....	.....	.....	.....	0	0	18	0	5	10	2	0	27	62	.....	10·7	29 S	4 33	—	1·44	15	15	0	0	4
a Ladner	49 5	123 4	.....	.....	.....	.....	.....	.....	.....		.....		.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6 50	−1·24	1·33	13	18	0	0	0
N. Nicomen	49 12	122 2	59	.....	.....	.....	.....	55·0	+ 5·2	9	78·0	2	39·0	13	16·8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Quesnelle	52 59	122 30	1700	.....	.....	.....	.....	.....	.....		.....		.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10 96	—	2 25	16	15	0	0	4
Clayoquot	49 11	125 47	40	.....	.....	.....	.....	53·4	—		71·0	2	38·5	1	13·4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0 43	—	0 43	1	30	1	0	0
Cranbrook	49 30	115 50	.....	.....	.....	.....	.....	43·7	—		67·0	20	23·0	4	28·8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Massett	53 58	132 9	30	.....	.....	.....	.....	.....	.....		.....		.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·66	—	0·41	9	22	0	0	6
Bullion	52 45	121 55	.....	.....	.....	.....	.....	49·4	—		75·0	4	28·0	15	21·9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bella Coola	52 20	126 54	15?	.....	.....	.....	.....	.....	.....		.....		.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2 30	—	0·43	7	24	0	0	0
Duncans	48 45	123 42	40	.....	.....	.....	.....	52·0	+ 3·1	10	72·0	2	29·0	16	22·7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nelson	49 29	117 21	.....	.....	.....	.....	.....	.....	.....		.....		.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4 63	0 78	0 78	16	15	0	0	0
Matsqui	49 7	122 18	.....	.....	.....	.....	.....	54·3	+ 4·7	12	73·0	23	38·5	16	17·7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Okanagan Mission	49 52	119 29	.....	.....	.....	.....	.....	.....	.....		.....		.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5 07	—	1 24	13	18	0	0	0
Alberni	49 15	124 49	300	.....	.....	.....	.....	53·8	—		77·1	2	34·9	1	15·4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2 07	—	0 94	12	19	0	0	0
Saturna Island	48 47	123 12	14	.....	.....	.....	.....	53·4	—		67·0	21	44·0	30	10·5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 46	—	0 46	8	20	0	1	0
Kaslo	49 52	117 0	.....	.....	.....	.....	.....	48·0	—		64·0	3	34·0	8	17·1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cape Scott	50 48	128 27	.....	.....	.....	.....	.....	50·8	—		66·5	2	35·0	2	12·3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16·73	—	2 62	26	5	0	0	0
N.-W. TERRITORIES:																																								
Medicine Hat	50 1	110 37	2161	29 99	30 49	29·24	1·25	50 8	+ 6·3	17	76·8	23	23·1	31	30·4	.....	.....	3	0	3	2	0	8	10	12	16	6	5	62	.....	.....	.....	0 45	−0 13	0·40	2	29	0	1	0
Edmonton	53 33	113 30	2158	29·91	30·36	29·07	1·29	47·2	+ 6·6	18	74·0	21	10·0	31	25·3	.....	.....	3	1	1	3	0	2	7	5	4	11	10	20	62	.....	15·0	30 NW	0 47	−0 23	0 41	2	28	0	0	0
Swift Current	50 20	107 45	2439	30·02	30·41	29·28	1·13	48 3	+ 6·5	15	72·0	24	17·0	31	23·8	.....	.....	3	0	3	2	0	4	14	9	12	10	8	62	.....	23·0	30 NW	0 46	−0 47	0 38	2	28	0	0	0
Qu'Appelle	50 30	103 47	2115	29·97	30 38	29 34	1·01	46 0	+ 6·6	18	74·0	20	16·0	15	24·4	.....	.....	4	2	2	1	1	8	9	12	9	13	7	62	.....	18·4	42 NW	0 37	−0 73	0 18	4	26	1	0	1
Calgary	51 2	114 2	3389	29·97	30·45	29·26	1·19	47·9	+ 7·3	17	74·0	3	18·0	15	29·8	.....	.....	3	3	1	3	10	8	3	1	3	4	46	62	.....	10·0	30 NW	0 10	−0 73	0 10	1	28	2	0	0
Prince Albert	53 10	106 0	1432	29·91	30·32	29·16	1·16	43 8	+ 6·6	16	73·0	21	16·5	31	26·8	.....	.....	4	6	1	0	3	1	3	1	3	4	46	62	.....	10·0	30 NW	0 68	+0 23	0 54	3	26	1	0	0
Battleford	52 41	108 20	1620	29·99	30 43	29 14	1·29	45 2	+ 5·7	10	74·0	3	13·0	31	28·0	.....	.....	3	1	13	24	4	222	12	49	181	138	101	714	6·3	23 0	30 W	0 68	+0 23	0 54	3	26	1	0	0
Onikup	53 30	101 20	.....	.....	.....	.....	.....	.....	.....		.....		.....		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0 33	—	0 18	6	25	0	1	0
a Banff	51 10	115 35	4542	30·08	30·62	29·28	1·34	43 7	—		64·7	4	22·1	15	23·5	.....	.....	4	1	2	2	0	0	5	22	3	1	27	62	.....	11·0	20 SW	0 33	—	0 18	6	25	0	0	0
Chaplin	50 27	106 40	2202	.....	.....	.....	.....	45 2	+ 4·5	17	72·0	21	18·0	14	24·9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0 10	−0 56	0 10	1	20	0	0	0
Moose Jaw	50 21	105 35	1745	.....	.....	.....	.....	44 5	—		76·0	22	15·0	15	28·4	.....	.....	.....	.....	.....	2	0	0	3	9	8	0	17	11	12	62	.....	.....	.....	0 52	—	0 37	4	27	0	0	0
Regina	50 27	104 37	1885	.....	.....	.....	.....	43 7	.....		75·0	21	15·0	15	29·8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0 50	.....	0 30	2	23	4	0	0
Indian Head	50 28	103 40	1924	.....	.....	.....	.....	43 7	+ 4·6	11	75·0	20	15·0	31	27·8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 58	+0 68	1 58	1	30	0	0	0
Cannington Manor	49 43	102 2	2064	.....	.....	.....	.....	44 0	—		67·8	22	18·0	31	28·8	.....	.....	.....	.....	3	7	2	4	6	11	8	14	5	60	.....	.....	.....	0 38	—	0 36	2	29	0	1	2

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PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, OCTOBER, 1901.

a. Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	Pressure. Mean reduced	Highest.	Lowest.	Range	Temperature. Mean	Difference from average.	Yearsobservt.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of the Dew point.	Mean relative Humidity.	Mean amount of Cloud.	No. of days completely clouded.	Direction of Wind from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of hours.	Velocity of Wind Mean miles per hour.	Highest day's velocity.	Date and direction from	Precipitation. Amount.	Difference from Average.	Heaviest fall in month.	Days with '01 or more	No. of Fair days	No. of Aurroras.	No. of Thund. storms	No. of Fogs.
	° ′	° ′		in.	in.	in.	in.	°	°		°		°		°	°																in.	in.	in.					
ONTARIO—(*Continued.*)																																							
*North Bruce	44 23	81 25	....	....	....	....	....	49·5	+ 2·5	13	70	0	29	25	0	28	—	....	....	....	.5	2	1	10	20	31	21	3	0	93	....	....	....	2·55	−0·24	0·81	12	19	0	0	1
Collingwood	44 30	80 15	....	....	....	....	....	49·2	− 0·6	10	73	0	31	27	0	28	13·7	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1·79	−0·62	0·49	12	19	0	0	0
Rooklyn	44 28	80 36	1339	....	....	....	....	45·6	—		1·70	0	31	22	0	28	17·1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1·99	—	0·34	12	17	0	1	0
Whiteside	45 0	79 30	....	....	....	....	....	48·7	+ 3·5	18	72	0	30	28	0	18	17·8	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·03	−1·60	0·40	10	17	0	0	0
Sprucedale	45 30	79 40	....	....	....	....	....	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Orillia	44 34	79 24	....	....	....	....	....	46·1	− 0·6	10	70	0	30	22	0	24	19·3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1·44	−1·80	0·36	12	18	0	0	0
Coldwater	44 38	79 40	....	....	....	....	....	46·2	+ 0·8	15	69	9	8	18	5	28	19·1	....	....	....	2	3	0	15	0	12	6	23	1	62	....	....	....	1·82	−1·60	0·36	10	21	0	2	0
Beatrice	45 8	79 20	....	....	....	....	....	45·0	+ 1·6	25	70	0	30	22	0	25	18·0	....	....	6	9	1	0	0	11	14	10	2	21	34	93	H	IV	13 W	2·89	−0·70	0·70	11	24	0	0	3	0
Gravenhurst	44 54	79 20	770	....	....	....	....	47·1	+ 2·2	30	71	0	30	25	0	25	17·2	....	....	5	2	10	1	3	6	22	18	14	11	8	93	H	V	23 N W	2·47	−1·16	0·51	12	19	2	0	0
Haliburton	45 1	78 28	....	....	....	....	....	45·5	+ 1·3	15	71	0	30	19	0	28	20·4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1·49	−1·31	0·22	16	15	0	0	2
*Point Clark	44 5	81 44	595	....	....	....	....	50·3	+ 1·3	30	70	0	1	29	0	28	—	....	....	3	0	19	1	1	5	39	13	12	3	0	93	IV	IX	3 W	2·23	−0·29	0·80	4	27	1	0	0
Bruham	43 2	81 55	....	....	....	....	....	49·8	+ 0·8	19	72	4	30	26	3	28	17·6	....	....	....	....	10	2	1	6	9	18	7	8	1	62	....	....	....	4·26	0·00	1·13	15	4	0	1	3
London	42 59	81 13	808	30 11	30 53	29 53	1·00	49·4	+ 1·1	18	73	0	28	22	0	28	23·2	41 3	74	3	1	1	0	3	3	1	12	37	36	0	93	I	II	3 S W	1·38	−1·26	0·38	9	18	0	0	0
Port Stanley	42 40	81 13	592	30 13	30 52	29 57	0·95	49·4	+ 0·1	27	74	6	23	25	3	25	19·8	....	....	4	4	28	41	16	90	18	205	184	79	83	744	9·4	21·3	18 S W	1·05	−1·93	0·68	10	21	0	0	4
Woodstock	43 8	80 47	980	30 10	30 48	29 45	1·03	47 8	+ 0·8	27	69	0	30	25	0	28	18·7	44·8	90	5	2	131	0	0	0	106	81	231	67	128	744	9·2	18·0	31 S W	1·94	−0·94	1·19	7	24	0	0	0
Port Dover	42 47	80 13	635	....	....	....	....	51 8	+ 2·6	25	72	2	23	26	2	25	17·4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	0·49	−1·81	0·12	9	22	0	0	0
Pelee Island	41 50	82 38	....	....	....	....	....	53 2	− 0·8	19	71	0	30	38	0	25	9·4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1·84	−0·02	0·61	4	27	0	0	0
St. George	43 14	80 12	722	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Paris	43 12	80 25	840	....	....	....	....	48·4	− 0·2	11	74	0	12	22	0	20	27·8	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	0·70	−2·22	0·25	7	24	0	1	0
St. Mary's	43 15	81 11	1040	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
*Biscotasing	47 3	82 8	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Bloomfield	43 59	77 13	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Calvin	46 15	78 48	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Agincourt	43 47	79 16	....	....	....	....	....	47 8	—		5	71	0	24	25	0	28	23·1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	0·38	—	0·12	6	25	0	1	2
Pickering	43 50	79 4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Hamilton	43 16	79 54	303	....	....	....	....	51·6	+ 1·6	25	74	3	12	32	0	24	19·1	....	....	....	....	3	1	2	0	5	3	26	1	21	62	....	....	....	0·84	−1·91	0·39	7	24	0	1	3
Port Hope	43 56	78 18	....	....	....	....	....	45·6	—		4	71	0	22	25	0	19	22·3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	0·59	−1·91	0·17	7	24	0	1	1
Kinmount	44 45	78 38	....	....	....	....	....	44 0	—		4	70	0	30	18	0	28	23·0	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	0·68	—	0·24	11	20	0	0	5
Cockburn Island	45 57	83 18	610	....	....	....	....	43 0	—		4	69	0	31	18	0	18	23·0	....	....	....	....	6	2	2	6	10	18	5	10	3	62	....	....	....	4·55	—	0·93	17	14	0	1	3
Chatham	42 23	82 12	595	....	....	....	....	50 4	+ 1·9	14	74	0	1-31	27	0	18	20·9	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1·32	−1·03	0·50	7	24	0	0	0
Dalhousie Mills	45 20	74 29	....	....	....	....	....	45 9	—		3	63	0	11	21	0	20	15·3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1·86	—	1·04	6	25	0	0	0
Meaford	44 37	80 37	....	....	....	....	....	49 5	—		3	72	0	30	28	0	25	16·4	....	....	....	....	7	0	0	1	4	25	18	2	5	62	....	....	....	2·13	—	0·60	11	20	0	0	0
Ruthven	42 3	82 41	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Listowel	43 44	80 58	....	....	....	....	....	47 7	—		6	68	0	30	26	0	24	16·0	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1·59	—	0·49	7	24	0	0	0
Bruce Mines	46 18	83 55	....	....	....	....	....	44 9	—		3	66	0	23-30	19	0	18	17·3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5·40	—	1·48	17	14	0	2	1
Rat Portage	49 48	94 32	1102	....	....	....	....	44 3	—		3	71	1	26	18	4	7	23·7	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	0·82	—	0·65	4	27	0	0	1
Dunnville	42 54	79 39	....	....	....	....	....	50 1	—		2	70	5	12	26	0	24	17·8	....	....	....	....	2	2	0	0	2	15	3	5	2	31	....	....	....	0·81	—	0·41	8	23	0	0	0
*Heron Bay	48 40	87 10	....	....	....	....	....	39 8	− 0·2	16	60	0	6	20	3	21	—	....	....	....	....	8	0	0	0	0	15	53	1	16	93	....	....	....	3·70	+2·08	1·55	8	23	0	0	0
Sturgeon Falls	46 16	79 54	....	....	....	....	....	44·2	—		2	67	0	31	21	0	3	14·4	....	....	....	....	4	3	0	1	6	15	25	2	0	56	....	....	....	4·41	—	1·37	10	21	0	0	0
QUEBEC:—																																								
Montreal	45 30	73 35	187	30·04	30 65	29·36	1·29	47·2	+ 1·2	27	70	0	12	30	0	23	13·2	....	....	....	....	51	22	29	64	66	193	207	105	4	744	14·1	27·5	23 W	3·60	+0·47	0·95	11	17	0	0	1
Richmond	45 40	72 8	435	....	....	....	....	45·8	+ 2·1	24	72	0	13	19	0	28	19·4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4·05	+1·32	0·74	12	19	0	0	0
Brome	45 10	72 36	....	....	....	....	....	45 2	+ 1·1	20	70	0	12	18	0	29	15·9	....	....	4	4	9	1	1	6	12	37	26	1	0	93	....	....	....	1·88	−0·76	0·35	10	19	0	1	0
Quebec	46 48	71 13	296	30 03	30 64	29·27	1·37	44 1	+ 1·0	27	68	0	12	23	8	20	13	....	....	7	8	2	10	18	8	5	295	219	83	4	744	11·6	33 3	10 N E	3·78	+0·63	0·82	14	14	0	2	0
Chicoutimi	48 25	71 15	150	....	....	....	....	41·0	+ 0·4	22	72	5	13	29	6	21	17·3	....	..	8	8	0	13	0	30	24	0	0	25	1	93	II	VIII	10 E	3·52	+1·06	0·95	6	25	0	1	1
Father Point	48 31	68 19	20	29·96	30 55	29 05	1·50	41·4	+ 1·7	24	68	7	13	26	1	26	13·9	....	....	8	11	65	1	95	0	122	24	37·8	59	0	744	18·2	38·0	N W	4·82	+1·92	1·07	18	12	1	1	1
Cape Chatte	48 55	65 45	....	....	....	....	....	42 2	+ 1·1	18	64	0	2	33	0	19	—	....	....	....	....	7	2	5	0	3	15	21	9	31	93	....	....	....	3·56	+0·81	0·76	10	21	2	0	0
Bicquette	48 25	68 55	....	....	....	....	....	40·7	+ 1·0	19	57	0	2	29	0	25	—	....	....	....	....	12	3	6	1	5	9	29	12	16	93	....	....	....	3·65	+0·30	0·70	10	21	0	0	3
*Cape Magdalen	49 16	65 20	....	....	....	....	....	42·7	+ 1·7	19	69	0	13	26	0	25	—	....	....	....	....	3	1	2	5	18	6	3	47	8	93	....	....	....	5·15	+2·01	1·80	12	19	0	0	1
Anticosti, W. Pt	49 52	64 32	....	....	....	....	....	41·4	+ 1·4	19	56	0	13	29	0	25	—	....	....	....	....	3	12	5	5	26	6	13	23	0	93	....	....	....	3·48	+0·24	0·60	14	17	0	0	1
Anticosti, S.W. Pt	49 24	63 35	30	29·90	30 52	29·00	1·52	37 9	− 2·4	18	52	0	15	26	0	23	13·7	....	....	6	11	10	4	8	14	6	2	4	14	0	62	....	38·0	18 N W	4·89	+1·66	1·90	13	18	0	0	5
Abitibi	48 43	79 22	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
*Anticosti, E. Pt	49 6	61 42	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Bird Rocks	47 51	61 8	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sherbrooke	45 24	71 55	....	....	....	....	....	45·0	—		1	72	0	—	21	0	21	—	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3·50	—	—	13	18	0	2	0
Percé	48 31	64 12	50	....	....	....	....	44·0	—		3	64	1	10	25	2	26	11·0	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4·71	—	1·48	16	11	0	0	3

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OBSERVATIONS AT STATIONS REPORTING RAIN, SNOW, WEATHER, &c., DURING OCTOBER, 1901.

STATIONS.	Rainfall.					Snowfall.				Remarks.
	Amount in inches.	No. of Days '01 or Over.	No. of Fair Days.	Heaviest Fall in Month.	Date.	Amount in inches.	No. of Days.	Heaviest Fall in Month.	Date.	
British Columbia—	in.			in.		in.		in.		
Naas Harbour	15·26	21	10	2·66	22					
Port Essington	21·31	25	6	2·88	23					
Caulfields	4·43	10	14	0·92	31					
Goldstream Lake	4·56	13	18	1·48	7					
Kuper Island	2·35	14	17	0·48	30					Fog 16, 22, 23, 25.
Royal Oak	3·28	10	21	0·88	6					
Coquitlam	5·85	14	17	1·00	31					
Vancouver	5·20	16	15	1·29	31					
Nanaimo	2·49	10	21	1·16	30-31					
N. W. Territories—										
Saltcoats	0·05	1	30	0·05	11					
Regina	0·84	3	28	0·63	8					
Strathcona	0·52	3	28	0·43	7					
Didsbury	0·00	0	30			3·0	1	3·0	8	
Weyburn	0·35	4	27	0·06	9					
Innisfail	R		27	R		2·0	2	2·0	8	
Calgary	0·30	1	30	0·30	7					
Dirt Hills	0·72	3	27	0·55	8	*	2			
Manitoba—										
Norquay	0·85	8	23	0·35	29	*	1	*	30	Thunder 30.
Morden	0·10	1	25	0·10	28					Thunder 29.
Cartwright	0·87	6	25	0·40	28					Thunder 29.
Belmont	0·43	4	27	0·22	28					Thunder 29.
Pembina Crossing	0·34	3	23	0·13	29					Thunder 29.
Ontario—										
Goderich	1·50	4	26	0·80	12	0·5	1	0·5	17	
Scarborough	0·41	4	23	0·17	10	*	1	*	16	Fog 11.
Arden	1·17	12	19	0·29	11	*	2	*	19	
Lansdowne	1·32	4	27	0·77	3					
Midland	2·17	14	15	0·40	3	*	1	*	17	Thunder 1, 4, 12, 17.
Croydon	1·05	5	26	0·40	19					Fog 11.
Georgetown	0·51	8	21	0·17	3	*	1	*	17	Thunder 2, 5, 13; fog 8, 10, 11, 12, 26, 30; aurora 26.
Cayuga	0·42	2	23	0·40	17	*	1	*	13	
Watford	1·25	4	27	0·50	13					
Orangeville	0·72	8	23	0·25	17	*	1	*	17	
Deer Park	0·44	4	27	0·22	10					
Aurora	0·59	6	25	0·20	3	*	1	*	17	
Oliver's Ferry	1·46	7	24	0·35	19					
Sunshine	2·37	10	21	0·68	3	*	3	*	18	
Westminster	1·06	4	27	0·35	16	*	1	*	17	
Wyoming	0·65	2	28	0·40	12	*	1	*	17	
Westport	1·48	8	23	0·50	2	*	1	*	18	Thunder 1, 2.
Kitley	1·77	6	25	0·68	2	*	1	*	18	
Jermyn	0·56	3	28	0·27	17					
Port Burwell	0·97	3	27	0·16	16	0·3	1	0·3	17	
Emsdale	4·25	17	14	0·75	9-10	1·5	3	1·5	17	Thunder 1, 2, 12 30.
Lion's Head	4·65	12	19	1·63	12					Thunder 1.
Princeton	1·19	4	27	0·50	10					
Wiarton	3·53	13	18	0·81	13	1·0	1	1·0	18	Thunder 1.
Dutton	0·98	4	27	0·50	16	*	1	*	18	Thunder 14.
Dealtown	1·33	4	27	0·54	16					
Ennismore	0·40	2	29	0·30	31					
Wooler	0·66	7	24	0·22	17					
Montague	1·42	3	28	0·27	9					
Ursa	1·08	11	20	0·28	5	*	3	*	15	
Elgin	1·69	4	27	0·80	2					
Providence Bay	3·11	17	14	0·85	13	*	1	*	18	Thunder 1, 30.
Parma	0·74	5	26	0·22	18					
Huntsville	2·60	4	27	0·85	5	0·5	1	0·5	18	Thunder 1, 5, (hail).
Uxbridge	0·74	6	24	0·20	5	2·0	1	2·0	7	Thunder 2.
New Brunswick—										
Point Escuminac	0·73	9	21	0·53	3	*	1	*	22	
Nova Scotia—										
Point Morien	5·12	8	23	0·53	18					

PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY DURING WHICH THE SUN WAS ABOVE THE HORIZON IN THE MONTH OF OCTOBER, 1901.

	Hours Ending															
	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.
Victoria	.....	.....	0·02	0·19	0·35	0·44	0·53	0·55	0·55	0·54	0·50	0·46	0·28	0·02	.....	.....
Nanaimo	.....	.....	0·02	0·09	0·38	0·49	0·55	0·58	0·54	0·54	0·55	0·53	0·33	S	.....	.....
Agassiz	.....	.....	0·00	0·01	0·26	0·34	0·38	0·45	0·42	0·43	0·46	0·40	0·15	0·00	.....	.....
Battleford	.....	.....	0·38	0·65	0·69	0·74	0·75	0·77	0·84	0·79	0·67	0·51	0·12	0·00	.....	.....
Indian Head	.....	.....	0·00	0·00	0·16	0·64	0·74	0·72	0·75	0·75	0·69	0·55	0·11	0·00	.....	.....
Brandon	.....	.....	0·17	0·50	0·73	0·78	0·83	0·83	0·68	0·64	0·53	0·23	0·02	0·00	.....	.....
Winnipeg	.....	.....	0·01	0·28	0·47	0·54	0·59	0·60	0·60	0·64	0·60	0·50	0·17	0·00	.....	.....
Durham	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Woodstock	.....	.....	0·00	0·14	0·54	0·66	0·65	0·71	0·67	0·70	0·63	0·51	0·20	0·03	.....	.....
Toronto	.....	.....	0·00	0·30	0·58	0·67	0·65	0·70	0·71	0·67	0·67	0·56	0·33	0·02	.....	.....
Lindsay	.....	.....	0·06	0·31	0·47	0·54	0·52	0·48	0·59	0·59	0·50	0·34	0·30	0·07	.....	.....
Barrie	.....	.....	0·03	0·38	0·46	0·49	0·57	0·60	0·58	0·53	0·53	0·48	0·21	0·00	.....	.....
Kingston	.....	.....	0·00	0·35	0·58	0·62	0·56	0·59	0·55	0·58	0·65	0·56	0·30	0·01	.....	.....
Ottawa	.....	.....	0·00	0·12	0·34	0·42	0·53	0·55	0·52	0·45	0·43	0·44	0·26	0·01	.....	.....
Montreal	.....	.....	0·00	0·11	0·32	0·39	0·48	0·55	0·57	0·52	0·45	0·38	0·15	0·00	.....	.....
Fredericton	.....	.....	0·24	0·38	0·48	0·57	0·55	0·58	0·61	0·59	0·56	0·48	0·05	0·00	.....	.....

	Victoria.	Nanaimo.	Agassiz.	Battleford.	Indian Head.	Brandon.	Winnipeg.	Durham.	Woodstock.	Toronto.	Lindsay.	Barrie.	Kingston.	Ottawa.	Montreal.	Fredericton.
Mean proportion for month (*Constant sunshine being 1.*)	0·40	0·42	0·30	0·65	0·47	0·55	0·46	.....	0·50	0·53	0·43	0·44	0·49	0·37	0·42	0·46
Difference from average	+ 0·05	–	+ 0·02	+ 0·19	+ 0·13	+ 0·19	+ 0·10	.....	+ 0·11	+ 0·11	+ 0·05	+ 0·10	+ 0·08	—	+ 0·00	+ 0·03
Maximum daily amount	0·91	0·91	0·81	1·00	0·71	0·85	0·88	.....	0·86	0·89	0·98	0·90	0·90	0·88	0·99	0·95
Date	12	2	26	4	22	5	25	.....	28	24	28	28	27	28	28	20
No. of days completely clouded	7	8	15	0	5	2	4	.....	3	2	3	2	3	4	6	4

Thunder recorded on :—

1. Stratford, Bissett, Parry Sound, Lucknow, Cockburn Island, Paris, Agincourt, Birnam, Rocklyn, Beatrice, Erasmus, Owen Sound, Midland, Providence Bay, Wiarton, Lion's Head, Ems lale, Westport, Uplands, Huntsville.

2. Lindsay, Quebec, Agincourt, Clontarf, Georgetown, Providence Bay, Emsdale, Westport, Uxbridge.

3. Toronto, St. Agathe des Monts.

4. Midland.

5. Coldwater, Deseronto, Beatrice, Georgetown, Huntsville.

7. Banff, Kal o.

9. Bullion.

11. Cockburn Island, Bruce Mines.

12. Parry Sound, Nottawasaga Island, Erasmus, Midland, Emsdale.

13. Georgetown.

14. Lucknow, Dutton.

17. Deseronto, Lucknow, Midland.

18. Coldwater.

20. Sable Island.

23. Brome.

27. Aweme.

28. Rivers Inlet, Hillview (*severe*).

29. Port Arthur, Cockburn Island, Pembina Crossing, Belmont, Morden, Cartwright.

30. Medicine Hat, Father Point, Parry Sound, Quebec, Beatrice, Providence Bay, Emsdale, Uplands, Norquay.

31. White River, Ursa.

Aurora recorded :—

Where the class of aurora is noted by the observer, it is given (I) being the brightest, (IV) the feeblest in brilliancy.

5. Battleford, IV.

7. Qu'Appelle, Athabasca Landing, III ; Aweme, II ; Pembina Crossing.

8. Truro, IV ; Barkerville, IV ; Pictou, IV ; Bowsman, IV ; Athabasca Landing, III ; Alameda, Manor.

9. Cranbrook.

10. Bowsman, IV.

11. Red Deer, IV.

13. Truro, IV ; Bowsman, IV.

15. Cape Chatte, III ; Bowsman, IV ; Red Deer, IV ; Pembina Crossing.

16. Winnipeg, IV ; Cape Chatte, IV ; Bowsman, IV ; Aweme, IV.

18. Prince Albert, II.

19. Prince Albert, II ; Father Point, III ; Savanne ; Bowsman, III ; Georgetown, IV.

20. Gravenhurst, IV.

21. Gravenhurst, IV.

22. Port Arthur, IV.

23. Aweme, IV.

24. Toronto, IV ; Aweme, IV.

25. Bowsman, IV ; Point Escuminac, III.

26. Georgetown.

NOTES.

METEOROLOGICAL RECORDS IN THE LAW COURTS.

The demand for meteorological records from all parts of Canada for use in the settlement of legal disputes is continually increasing, and for these records the Dominion is chiefly indebted to the volunteer observers, who now number several hundred. Many and various are the questions, which these data are required to prove, the greater number probably being in claims for goods damaged by weather in railway transit, no less than sixty examinations of the records being required in 1900 for this purpose by the two principal railway companies in Canada. In these cases it is often required to know the actual weather occurring along the whole route of a train, which has been several days upon its journey, and where the chain of observing stations is insufficiently complete recourse is made to the daily weather charts, which show the weather conditions likely to have prevailed in all portions of the Dominion. In some instances questions, in which very large amounts were at stake, have been settled by producing records of the actual weather prevailing upon a date long past, and in some instances the plaintiff, who has trusted to his bad memory and that of his witnesses, has been sadly disappointed. These latter cases are chiefly for claims against town or other corporations by whose supposed neglect the plaintiff's person or property has been damaged.

PHENOLOGICAL NOTES FROM NORTH-WEST RIVER.

North-west River is a trading post of the Hudson's Bay Company in Hamilton Inlet, Labrador, Latitude 44° 7′ Longitude, 59° 3′. At this place a second class meteorological station was recently established with Mr. Stewart Cotter, a most careful observer, in charge. Besides the regular meteorological returns the following phenological notes have been received from this station, to which we have added where possible the dates upon which the same phenomena was observed in Toronto from March 1st to June 30th, 1901. Snow bird seen March 31st. Brooks running April 4th. Toronto: March 31st. Snow disappearing April, 7th. Toronto, March 25th. Flocks of snow birds, April 10th. Ducks and fish hawk seen April 14th. Wild geese, April 16th. Toronto: March 23rd. Ptarmigan, April 17th. Bay ice too soft for travelling, April 19th. Ducks plentiful, April 21st. All rivers open, April 23rd. Toronto: March 31st. Station clear of snow, April 24th. Toronto: April 23rd. Willow in bud, April 28th. Toronto: April 6th. Robins seen May 3rd. Toronto: March 18th. Snipe, May 10th. Swallows, May 12th. Toronto: April 22nd. Golden woodpecker, May 13th. Toronto: April 22nd. Loon, May 18th. Frogs piping, May 20th. Toronto: April 15th. Butterfly seen May 20th. Toronto: May 7th. Dandelion in bloom, June 2nd. Toronto: May 6th. Plants cut down by frost, June 17th Kingfisher, June 21st. Toronto: April 13th. The observer also remarks on April 4th that spring is unusually early. It will be noticed that although the disappearance of ice and snow was very slightly earlier in Toronto, the spring changes in vegetation, arrival of birds, etc., was considerably earlier. In lower latitudes the snow bird is a winter visitor, but on the Labrador coast it is a harbinger of spring. Although the snow disappeared at the North-west River on April 24th, snow flurries occurred on May 21st and 24th, and on May 9th snow fell throughout the day. Temperatures below the freezing point occurred upon twenty days in May, and on one day in June.

WEATHER FORECASTS AND THE PUBLIC.

The weather forecast official in every country is subject to such frequent and often severe criticism by the general public that it might not be taken amiss if we put into print a short criticism of the public by the forecast official. The so-called general public is classed under two heads by the weather man, namely, those directly connected with the commercial, agricultural and maritime organizations, whose interests are largely affected by changes in temperature, wind and rainfall, and the leisured class and dependants, whose only interest in the daily forecast is the amount of pleasure or discomfort these changes may cause him. The former class carefully watches each day the predicted direction and force of the wind, change of temperature and probable amount of rain, and if his business has been helped with good predictions of either of these elements he is well satisfied. The latter class on the other hand is only anxious as to whether their pleasure is going to be spoiled by rain or not, and woe betide the forecast man if he comes into the presence of the society young woman, whose new dress or hat has been spoiled by a shower he has failed to predict. These people who from day to day only watch the prediction for rain or fine weather, are not aware that of all the elements rain is the most difficult to predict, and consequently should rain come unexpectedly, they will condemn the whole forecast, although on the same day hundreds of lives may have been saved by a correct prediction of the wind set forth in the same bulletin, which they have condemned. In order that we may be fair in our criticism it must be admitted that the forecast official is sometimes given credit where he does not deserve it by the very same people, who condemn him, his prediction of rain often being accepted as verified, if it comes the day after that for which it was predicted. There is one more remark, which only applies to the

more ignorant portion of the public. With this section of the community government weather forecast officials, whose appliances are the best that money can produce, and whose predictions are only for a few hours ahead, are classed with weather prophets, and they are quite unaware that before the several governments undertook to establish weather bureaus they established the fact beyond a doubt that a large degree of success could be attained whilst the success of the prophet was mere chance.—F.F.P.

FORECASTS FOR OCTOBER, 1901.

The forecasts issued by this office at 11 p m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of predictions issued during the month was 1193. These were divided as follows:—

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Percentage
Manitoba	102	88	6	8	89·2
Lake Superior	116	81	26	9	81·0
Lower Lake Region	129	109	14	6	89·9
Georgian Bay	129	104	15	10	86·4
Ottawa Valley	121	92	23	6	85·5
Upper St. Lawrence	122	98	18	6	87·7
Lower St. Lawrence	116	97	15	4	90·1
Gulf	116	96	18	2	90·5
Maritime Provinces, West	122	105	16	1	92·6
Maritime Provinces, East	120	104	13	3	92·1
Total	1,193	974	164	55	88·5

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used

R. F. STUPART,
Director.

Meteorological Office, Toronto,
26th November, 1901.

METEOROLOGICAL SERVICE, DOMINION OF CANADA.

Monthly Weather Review.

VOL. XXV NOVEMBER, 1901. No. 11

INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm signal agents. For the material used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

REMARKS UPON THE WEATHER.

The chief characteristics of the weather of November were deficient precipitation, with a few local exceptions, throughout the Dominion, exceptionally high mean temperatures in the Western Provinces and low mean temperatures in Ontario. Elsewhere the departures from the normal in the various meteorological elements were, with few exceptions, comparatively unimportant. In Ontario and Western Quebec wintry conditions set in early, whilst in more eastern and western provinces open weather prevailed to the end of the month. In the extreme eastern and western provinces some plants were still in bloom on the 30th, this being more especially the case in western districts.

In British Columbia the weather was exceptionally gloomy, mild and wet, and although the absence of wintry conditions were favorable in some respects, the frequent absence of sunshine and frequent strong winds were exceedingly unpropitious. Snow fell in some districts, but by the end of the month it had all disappeared from the lower levels. In many localities ploughing was continued to the end of the month, and many plants were still in bloom.

The weather in the North-west Territories was unusually mild and dry, the mean temperature being considerably above average and precipitation below. During the early portion of the month cold weather prevailed, after which fine mild days with much bright sunshine and sharp frosts at night were mostly prevalent. The snow that fell was soon melted, and at the end of the month the ground was bare in most localities. The dry weather induced prairie fires which in some districts did considerable damage by burning horses and cattle.

In Manitoba the weather conditions were very similar to the conditions in the Territories, high temperatures and light precipitation prevailing with much bright sunshine. Most rivers were frozen during the first week when some snow fell, but warm winds soon melted the snow, and throughout the greater portion of the month the ground was bare. This open weather was exceedingly favourable for cattle, grazing being possible up to the 30th.

The weather in Ontario was characterized by low mean temperatures and light precipitation both being below the average, also bright sunshine in excess of the average, excepting in eastern districts where it was somewhat below. Wintry conditions set in earlier than usual, temperatures below zero being recorded at many places in the northern portion during the last ten days, and rivers closing and good sleighing occurring in eastern and northern counties late in the month. Few storms were recorded, and there were comparatively few high winds. A few southern migratory birds were noted during the month, and dandelions were gathered in Toronto on the 30th.

In the Province of Quebec cool weather prevailed in western districts whilst in the eastern portion the mean temperature was average or slightly above. In the latter portion of the province the weather was exceptionally fine, and almost everywhere the precipitation was deficient. Good sleighing prevailed throughout the greater part of the month, and temperatures below zero were recorded at two stations on about the 30th.

The weather in New Brunswick did not depart much from the normal excepting in the amount of the precipitation which was generally deficient. In southern districts the mean temperature was somewhat less than the average, but elsewhere it was average or slightly above. Good sleighing was reported from some

districts, but in most places there was little snow on the ground on the 30th. Navigation closed on the St. John River on the 23rd.

In Nova Scotia the weather was exceptionally fine and dry and in most districts the mean temperature was slightly in excess of the average. Little snow fell, and the signs of approaching winter were not marked until late in the month. Heavy gales were recorded on the 13th and 25th.

The weather in Prince Edward Island was generally fine, mild and dry, the temperature being above average and the precipitation below. There was also much bright sunshine, and the snow that fell was soon melted. Rivers and bays were free of ice, and ploughing was continued until the 29th.—F. F. Payne.

ATMOSPHERIC PRESSURE.

The mean pressure ranged from 30·18 in Manitoba to 29·81 in northern British Columbia. The average was exceeded from Assiniboia to the eastern boundary of Ontario and was not reached over other portions of the Dominion. The greatest deficiency was about 0·15 of an inch in the Maritime Provinces and the chief excess 0·09 of an inch in Manitoba and near Lake Superior.

HIGH AREAS.

There was a large amount of high pressure during the month; as many as ten areas were sufficiently well marked to be charted and several were of much importance.

No. 1 lay over the Pacific States during the last two days of October and by the morning of the 1st of November had reached the Lower Missouri Valley, afterwards it passed over the Lower Lake Region and the Ottawa and St. Lawrence Valleys accompanied by fine and very mild weather. No. 2 covered the North-west Territories and Manitoba between the 2nd and 4th, attended by cold weather and then passed south-southeastward reaching the Ohio Valley on the 5th and losing its identity on the 8th over the State of New York. No. 3 was a very moderate area situated in the North-west Territories between the 5th and 6th and thence passed southward to Tennessee where it lost its identity. No. 4 was centred near Edmonton, Alta., on the morning of the 8th. It then moved over the North-west States to the Lake Region being centred in the vicinity of Lake Ontario on the 10th whence it passed southward and broke up. It was a fairly energetic area and during its presence sharp freezing weather occurred in Ontario, Quebec and the Maritime Provinces. No. 5 moved on to the Oregon Coast on the 10th and passed south-eastward to Northern Texas where it broke up. No. 6 moved into the South Saskatchewan Valley during the night of the 13th and afterwards was centred in Manitoba until the night of the 16th accompanied by quite cold weather. It then passed southward and became unimportant. No. 7 passed into the Middle Pacific States on the 17th and the main area moved in a comparatively straight course over the Continent arriving on the Middle Atlantic Coast on the 22nd, another part of it, however, traversed the country from the Saskatchewan to the Mississippi Valley. No. 8 travelled from the far North-west north of Manitoba and Lake Superior to the Ottawa Valley and thence across the Maritime Provinces. It was an energetic area attended by decidedly cold weather, the temperature near its centre falling below zero in many localities. No. 9 was a feeble area which travelled between the 21st and 25th from the Middle Pacific States to the east coast of the Gulf of Mexico. No. 10 apparently formed in the North-west Territories during the night of the 23rd and on the morning of the 24th it was situated in Manitoba. High pressure then spread over the greater portion of the Continent, the greatest pressure covering the Lake Superior district until the 27th when the main area drew southward to the States adjoining the Gulf of Mexico, being centred in Alabama on the 29th. During the presence of this system cold wintry weather generally obtained over the greater portion of Canada from New Ontario to the Maritime Provinces.

LOW AREAS.

Ten areas of depression were charted during the month, their general course being across British Columbia, the Territories and Manitoba to the Lake Region.

No. 1 was situated in Alberta on the morning of the 1st and by the succeeding evening when it had reached Manitoba a secondary development was shewn over Kansas culminating in the formation of an energetic system which swept over the Lake Region on the 3rd, and then apparently travelled in the direction of Hudson's Bay. The system caused a moderate to fresh gale over the Lake Region together with moderate falls of rain turning locally to light snowfalls or flurries. No. 2 lay over British Columbia on the morning of the 5th, travelled quickly over the North-west States into the Lake Region and on the 6th dispersed in the Upper St. Lawrence Valley. It caused a moderate snowfall over the greater portion of the Territories and Manitoba and snow and rain in Ontario together with a moderate gale on the Lakes. No. 3 passed over Canada from British Columbia to Quebec between the 7th and 9th as a very shallow depression, but it gained more energy

after reaching the Gulf of St. Lawrence. It brought some light snowfalls from the Rockies to Lake Superior and light rains from the Lower Lake Region to the Maritime Provinces, the winds at the same time increasing to gales in the Gulf of St. Lawrence. No. 4 was centred in Alberta on the evening of the 9th as a moderate depression but it soon proved to be very energetic. Its maximum intensity was seemingly attained in the Bay of Fundy when it afterwards took a remarkable course backing to the Ottawa Valley where it was centred on the 15th. On the morning of the 16th it was moving eastward having assumed the normal course and by night it had passed into the Gulf of St. Lawrence. It brought light local snowfalls in the Territories and Manitoba and fresh to heavy gales from the Lake Region to our Atlantic Coast attended by rain in Ontario and the Maritime Provinces and by heavy snowfalls over the greater portion of Quebec. No. 5 moved into British Columbia on the 15th from the Pacific Ocean thence north-eastward to the northward of Alberta and out of range of observation. It caused fine mild weather in the Territories and Manitoba. No. 6 was a very feeble depression which passed from Northern Texas to Alabama between the 17th and 19th. Its influence did not extend to Canada. No. 7 developed in the South-west States in the southern portion of an extensive elongated trough. On the morning of the 23rd it had reached Georgia, whence it took a more north-easterly course being centred near Atlantic City on the morning of the 24th and the following morning near the Bay of Fundy, having developed great energy as it advanced. It brought moderate gales throughout Eastern Canada with snow in the Ottawa and St. Lawrence Valleys and heavy rains in the Maritime Provinces. No. 8 travelled from British Columbia to the Lake Region between the 22nd and 24th and was then merged in No. 7. It was by no means pronounced and was attended by a few light local falls of snow or sleet only. No. 9 was a very moderate depression which moved between the 27th and 29th from British Columbia to the Lower Lake Region and then dispersed. It caused a moderate fall of snow in all portions of Ontario. No. 10 was situated over British Columbia on the 28th and by the night of the 30th it had reached Lake Superior. It was attended by light local snow or sleet.

WINDS.

In British Columbia over the lower mainland and Vancouver Island the easterly was the direction mostly in evidence, only one gale was recorded and strong breezes were seldom experienced, the force being usually from light to moderate.

In the North-west Territories and Manitoba no one direction predominated. Strong breezes were not very numerous, but there were many days on which the force of a fresh breeze was attained.

In the Lake Region the direction was largely westerly: four gales occurred, the heaviest being experienced between the 12th and 15th, and lasting during the greater part of four days. The other gales were on the 3rd, the 7th and between the 23rd and 25th. Besides the gales there were strong breezes generally recorded on seven days and fresh winds on eight days.

In the Ottawa and St. Lawrence Valleys and in the Gulf the westerly direction predominated, three gales occurred, namely, on the 10th, between the 13th and 14th and between the 25th and 28th, the latter being the heaviest of the number and lasting for four days. Irrespective of the gales the number of days of strong winds recorded was not excessive.

In the Maritime Provinces the westerly direction was also paramount; two gales only were recorded, they were on the 13th and 25th, both were severe, but the latter was the heaviest of the two. There were many days on which light to moderate winds prevailed, but few in which the force of a strong breeze was reached.

The gales were all amply and successfully warned, but a warning issued for the stations in the Lower St. Lawrence Valley and the Bay of Chaleur on the 3rd, was not justified by subsequent high winds. In reference to the storm of the 25th instant, our agent at Halifax in his remarks says the warning was ample and several gentlemen have made remarks on the excellence of the service both as to the daily bulletin and storm signals. Bathurst reports of the storm of the 25th as follows :—"Heavy gale with extraordinary fall of snow, very high tide caused considerable damage to wharfs, all telephone poles on the bridge to the town were blown down, roads impassable in the country."

TEMPERATURE.

The temperature was from 1 to 4 degrees below average over Ontario and in Western Quebec, average or slightly below in the far northern portions of the North-west Territories, and above average in all the remaining parts of Canada. In British Columbia the excess was as much as 8 degrees in some localities. In Manitoba and over the southern parts of the North-west Territories it was also considerable, amounting to from 3 to 6 degrees; likewise in the Maritime Provinces it was from 1 to 4 degrees.

The Highest and Lowest temperatures in each Province during September, 1901, were:

British Columbia,	76°·0 on 1st at Quesnelle,	10°·0 on 11th at Barkerville.
		10°·0 on 7th at Quesnelle,.
North-west Territories,	63°·0 on 29th at Crane Lake,	—10°·0 on 12th at Athabasca Landing.
		—10°·0 on 24th at Crescent Lake,
Manitoba,	59°·0 on 12th at Elkhorn,	—10°·0 on 4th at Barnardo.
		—10°·0 on 22nd at Bowsman,
Ontario,	69°·0 on 1st at St. Catherines,	—22°·0 on 28th at White River.
Quebec,	71°·0 on 1st at Richmond,	— 7°·0 on 28th at St. Ag. des Monts.
New Brunswick,	66°·0 on 1st at Moncton,	— 3°·0 on 30th at St. Stephen.
Nova Scotia,	67°·3 on 1st at Truro,	11°·0 on 24th at Truro.
Prince Edward Island.	60°·0 on 1st at Hamilton,	18°·0 on 30th at Charlottetown.

PRECIPITATION.

The preciptation, except in a few isolated localities, was below the average in all portions of Canada and in most districts to a considerable amount. The exceptions were, at Montreal and in its immediate vicinity, 0·33 inch above the average, the country to the north-eastward of Lake Superior somewhat more than average precipitation, and the Lower Mainland of British Columbia very much above the average. Rivers Inlet recorded 20 inches; Agassiz, 10·6 inches; Vancouver, 14 inches; Chilliwack, 13 inches; Nicomen, 14·6 inches; Port Essington, 17 inches; Coldstream Lake, 15 inches; Coquitlam, 13 inches; Clayoquot, 33 inches; Westminster, 12 inches; Agassiz, almost 11 inches; Port Bobs, 25 inches, and Cape Scott, 29 inches. The chief deficiencies were: In Manitoba from a half to one inch; in the Lake Region from 1 to 2 inches; in Quebec from 1 to $2\frac{1}{4}$ inches, and in the Maritime Provinces from 1 to 3 inches. In the Province of Quebec the precipitation was largely snow. In many parts of Ontario and New Brunswick there was also a good deal of snow. At the close of the month there was from 4 to 10 inches of snow on the ground from Lake Superior to the Ottawa Valley, including the Nipissing and Muskoka Districts; in Quebec from 10 to 15 inches, and in a large portion of New Brunswick from 4 to 8 inches, but elsewhere in Canada little or none, and what is somewhat remarkable, scarcely any in Manitoba and the Territories.

BRIGHT SUNSHINE.

Bright sunshine was deficient in British Columbia and over Eastern Ontario and in Quebec, but was slightly in excess of the average elsewhere in Canada. The percentage of the possible duration ranged from 40 at Brandon to only 7 at Agassiz. In Ontario it was from 24 to 31.

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, NOVEMBER, 1901.

a. Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	PRESSURE. Mean reduced.	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observt.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of Dewpoint.	Mean relative Humidity.	Mean amount of Cloud.	No. of days completely clouded.	DIRECTION OF WIND FROM N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	C.	Total number of hours	VELOCITY OF WIND Mean miles per hour.	Highest day's velocity.	Date and direction from.	PRECIPITATION. Amount.	Difference from Average.	Heaviest fall in month.	Days with .01 or more.	No. of Fair days.	No. of Auroras.	No. of Thund. storms.	No. of Fogs.
	° ′	° ′		in.	in.	in.	in.	°	°		°		°		°																							
BRITISH COLUMBIA:																																							
Victoria	48 24	123 19	85	29 95	30 39	29 54	0 75	48 5	+ 5 3	10	63 1	28	40 0	10	6 9	.....	.....	9	18	116	53	154	129	71	71	61	6	9	720	8 0	20 8	5 SW	6 44	−0 53	1 31	24	5	0	2	1
Barkerville	53 2	121 35	4180	29 86	30 33	19 42	0 91	31 2	+ 6 9	13	46 0	29	10 0	11	10 5	.....	.....	8	14	0	0	0	0	3	2	0	0	55	60	.....	.....	.....	3 90	+ 0 61	0 88	15	13	0	0	0
Agassiz	49 14	121 31	52	44 4	+ 4 8	11	66 0	3	31 0	18	17 7	.....	.....	5	1	12	0	0	0	48	0	30	0	0	90	.....	.....	.....	10 57	2 32	1 22	24	6	0	0	0
Port Simpson	54 34	130 26	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Spence's Bridge	50 23	121 20	770	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hazlemere	49 3	122 43	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Revelstoke	51 0	118 6	1476	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kamloops	50 41	120 29	1193	29 95	30 38	29 55	0 88	41 2	—	8	60 5	1	26 0	4	12 1	.....	.....	.....	.....	0	1	0	31	1	1	0	2	24	60	.....	.....	.....	1 23	—	0 80	5	24	0	0	0
Princeton	49 29	120 29	1650	.....	.....	.....	.....	35 8	—	6	52 0	16	23 0	4	13 3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 06	—	0 31	15	15	0	0	10
Pilot Bay	49 39	116 55	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rivers Inlet	51 39	127 19	20	29 81	30 20	29 27	0 93	43 1	—	7	53 9	15	31 1	24	6 2	42 5	98	9	18	0	0	1	37	1	0	1	0	50	90	1	III	15 SE	20 12	—	1 62	30	0	0	0	0
Stuart's Lake	54 28	124 12	1800	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
French Creek	49 26	124 36	.....	.....	.....	.....	.....	44 2	+ 4 4	9	58 0	5	30 0	2	12 6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6 58	+0 62	1 23	18	12	0	0	0
Coldstream	50 14	119 15	1246	.....	.....	.....	.....	38 2	—	6	58 0	1	25 0	17	14 2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0 10	—	0 10	1	29	0	0	0
Nanaimo	49 10	123 57	.....	.....	.....	.....	.....	44 4	—	1	59 5	28	31 9	8	11 6	43 9	95	8	10	4	1	5	40	9	6	5	2	18	90	5 5	16 3	30 SE	7 08	—	1 11	26	4	0	1	0
Chilliwack	49 10	121 57	21	29 93	30 36	29 69	0 76	44 4	—	3	56 0	1	32 0	18	9 4	43 4	97	8	6	1	5	53	5	6	8	4	2	0	84	13 2	19 0	5 NW	1 34	—	2 61	24	6	0	0	2
Port Bobs	50 32	128 3	.....	45 1	—	5	56 0	5	35 0	8	8 6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24 84	—	4 35	30	0	0	2	0
Midway	49 0	118 46	1860	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Euderby	50 8	119 7	1180	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nicola Lake	50 9	120 39	2120	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0 96	....	0 30	11	17	0	0	0
West Kootenay	49 20	117 50	.....	37 2	—	6	55 0	1	20 0	2	15 8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2 60	—	0 59	16	14	0	0	4
*a*Garry Point	49 21	123 17	.....	37 1	—	6	58 0	13	23 0	18	13 2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0 10	—	0 10	1	29	0	0	0
Tobacco Plains	49 1	115 5	2300	45 0	—	6	55 0	14	33 0	8	10 6	.....	.....	.....	.....	3	26	33	5	7	1	8	2	5	90	9 9	24 0	5 W	7 00	.....	1 90	21	9	0	0	4
Vancouver	49 17	123 5	195	37 6	—	6	54 1	1	20 0	2	11 6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 25	—	0 51	10	20	0	0	4
New Westminster	49 13	122 54	330	44 4	—	3	56 9	15	31 0	17	10 8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14 06	—	2 05	27	3	0	0	0
*a*Ladner	49 5	123 4	.....	29 99	30 41	29 61	0 80	45 1	+ 3 6	10	55 5	27	33 8	18	7 6	.....	.....	9	18	1	0	31	6	5	3	1	0	13	60	.....	.....	.....	11 98	+4 08	1 79	26	3	0	0	1
N. Nicomen	49 12	122 2	59	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Quesnelle	52 59	122 30	1700	45 3	—	8	55 0	5-28	33 0	18	8 8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14 60	—	2 49	25	3	0	2	2
Clayoquot	49 11	125 47	40	41 0	—	8	76 0	1	10 0	7	32 3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0 30	—	0 15	4	26	0	0	0
Cranbrook	49 30	115 50	.....	49 0	—	3	61 0	15-28	31 5	10	13 4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	32 87	.....	3 57	29	1	0	2	2
Massett	53 58	132 9	30	34 6	—	1	51 0	16	11 0	11	17 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1 18	.....	0 73	2	28	0	0	0
Bullion	52 45	121 55	.....	36 7	—	5	57 0	28	19 0	11	11 9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bella Coola	52 20	126 54	150	37 7	—	3	49 0	4	22 0	10	6 9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2 35	—	0 89	14	16	0	0	5
Duncan's	48 45	123 42	40	42 9	— 0 6	11	57 0	9	28 0	10	14 5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nelson	49 29	117 21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10 05	+ 6 39	1 83	19	11	0	0	0
Matsqui	49 7	122 16	.....	44 0	+ 1 0	12	54 0	28	31 0	17	11 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10 00	—	1 17	15	15	0	0	0
Okanagan Mission	49 52	119 29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12 29	+3 68	2 44	26	4	0	0	0
Alberni	49 15	124 49	300	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Saturna Island	48 47	123 12	14	44 2	—	7	57 1	28	33 9	2	8 1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17 78	—	2 35	25	5	0	2	0
Kaslo	49 52	117 0	.....	47 0	—	1	56 0	27	37 0	10	8 4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5 38	—	1 14	20	10	0	0	0
Cape Scott	50 48	128 27	.....	38 8	—	4	47 0	13-30	30 0	8	8 4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3 67	—	0 57	19	7	0	0	0
				45 1	—	2	56 8	27	33 0	9	9 4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	28 59	—	3 65	30	0	0	1	0
N. W. TERRITORIES:																																							
Medicine Hat	50 1	110 37	2161	30 04	30 68	29 53	1 15	32 9	+ 5 8	17	60 8	1	7 0	3	19 7	.....	.....	4	0	2	1	7	3	11	7	9	5	15	63	.....	13 0	27 S	0 55	−0 37	0 30	4	26	0	0	0
Edmonton	53 33	113 30	2158	30 02	30 74	29 46	1 28	22 3	— 0 8	18	47 0	29	— 3 0	9	17 2	.....	.....	5	4	1	5	3	9	3	6	4	4	25	60	.....	.....	.....	1 10	+0 52	0 28	8	21	0	0	0
Swift Current	50 20	107 45	2438	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Qu'Appelle	50 30	103 47	2115	30 11	30 76	29 50	1 26	24 4	+ 5 4	18	57 3	29	— 2 5	4	21 8	.....	.....	5	2	0	1	9	4	18	9	3	11	5	60	.....	26 2	2 NW	0 17	−0 72	0 15	3	24	0	0	2
Calgary	51 2	114 2	3389	30 01	30 70	29 47	1 23	28 4	+ 3 2	17	60 0	29	— 5 8	2	23 3	.....	.....	5	4	4	1	3	4	1	7	12	6	22	60	.....	18 0	17 NW	0 40	−0 48	0 20	2	27	0	0	0
Prince Albert	53 10	106 0	1432	30 08	30 77	29 47	1 30	16 3	+ 0 4	12	59 5	12	— 7 5	22	20 0	.....	.....	6	13	1	1	7	0	0	0	7	1	43	60	.....	8 0	15 E	0 78	−0 05	0 26	6	24	0	0	0
Battleford	52 41	108 20	1620	30 11	30 73	29 45	1 28	20 7	+ 4 9	10	43 0	12	— 2 0	21	18 8	.....	.....	5	6	4	22	56	276	6	23	68	133	132	720	7 2	20 0	14 SE	0 23	−0 35	0 10	5	22	2	0	0
Oonikup	53 30	101 20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
*a*Banff	51 10	115 35	4542	30 07	30 59	29 51	1 08	28 7	—	6	47 0	29	7 8	2	14 3	.....	.....	5	2	0	2	1	0	4	14	6	1	32	60	.....	IX	27 S	1 30	.....	0 37	15	15	0	0	0
Chaplin	50 27	106 40	2202	.....	.....	.....	.....	25 6	+ 1 7	18	52 0	29	— 5 0	3	17 9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0 10	−0 27	0 10	1	29	0	0	0
Moose Jaw	50 21	105 35	1745	.....	.....	.....	.....	24 6	—	7	56 0	29	0 0	24	23 3	.....	.....	.....	.....	3	0	6	7	9	3	11	14	7	60	.....	.....	.....	R	—	.....	6	29	0	0	0
Regina	50 27	104 37	1885	.....	.....	.....	.....	22 3	+ 4 7	17	57 0	29	0 0	4	25 1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R	−0 38	R	0	5	0	0	0	0
Indian Head	50 28	103 40	1924	.....	.....	.....	.....	20 0	+ 3 8	12	52 0	28	— 4 0	4	22 4	.....	.....	.....	.....	0	1	4	27	18	9	1	30	0	90	.....	.....	.....	0 00	−0 38	0 00	0	30	0	0	0
Canonington Manor	49 43	102 2	2064	21 7	—	6	47 0	13	— 5 0	4	23 3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0 11	—	0 10	2	28	0	0	8

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, NOVEMBER, 1901.

a, Barometer not reduced to Sea Level. *Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level in feet.	Pressure. Mean reduced.	Highest.	Lowest.	Range.	Temperature. Mean.	Difference from average.	Years observt.	Highest.	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of Dewpoint.	Mean relative Humidity.	Mean amount of Cloud.	No. of days completely clouded.	Direction of Wind from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of hours.	Velocity of Wind Mean miles per hour.	Highest day's velocity.	Date and direction from.	Precipitation. Amount.	Difference from Average.	Heaviest fall in month.	Days with 01 or more.	No. of fair days.	No. of Auroras.	No. of Thand storms.	No. of Fogs.
	° ′	° ′		in.	in.	in.	in.	°	°		°		°		°																	in.	in.	in.					
N. W. Territories:—*Con.*																																							
Macleod	49 44	113 24						35·3			46·0	29	2·0	11	21·9					5	4	7	4	3	9	51	7	0	90				0·45		0·20	3	27	0	0	0
Gatesgarth	50 20	105 0	1879					22·3			62·0	29	2·0	4	24·5					4	1	5	5	5	0	9	1	0	30				0·03		0·03	1	27	0	0	0
Pincher Creek	49 11	114 0	3750					35·0			57·0	29	8·0	1	19·9																			0·45		0·45	1	29	0	0	0
Grenfell	50 23	102 53	1957																																				
Kneebill	51 55	113 0																																					
Muskowpetung	50 55	104 30																																					
Fort Simpson	61 52	121 43																																					
Alameda	49 15	102 17	1892					22·2	—		57·0	1	— 2·5	3	25·5																			0·00	—	—	0	30	0	0	2
Dawson	64 4	139 20																																					
Red Deer	52 15	113 30	2795					29·0			53·1	16	2·9	3	18·1					2	0	3	5	2	13	2	3	0	30				0·33		0·25	5	25	3	0	3
Saskatoon	52 15	106 30	1571					20·2			48·9	2	— 7·5	24	21·6																			0·12		0·12	1	29	0	0	0
Crane Lake	59 0	109 50	2516					31·4			63·0	29	— 2·0	3	18·2					1	0	6	0	29	0	20	4	0	60				0·67		0·45	6	23	0	0	1
Tagish (Yukon)	60 17	134 15																																					
Moosomin	50 0	101 37	1884					19·0			51·0	29	— 6·0	3	21·0																			0·05		0·05	1	26	0	0	0
Athabasca Landing	54 43	113 17						15·4			48·0	18	—10·0	12	30·8																			0·73		0·15	8	22	0	0	0
Calgary (Ex. Station)								28·1			52·9	17	— 6·0	2	25·6																			0·52		0·30	3	24	0	0	0
Crescent Lake								17·6			45·0	19	—10·0	24	19·9																			0·39		0·22	6	24	0	0	1
Estevan	49 12	103 4	1858					14·9	—	1	40·5	30	— 7·5	4	20·4					5	9	3	12	10	5	4	11	1	30				0·65	—	0·20	4	22	4	0	2
Melfort	52 47	104 30																																					
Manitoba:																																							
Minnedosa	50 15	99 50	1691	30·18	30·87	29·39	1·48	22·6	+ 4·5	18	56·0	28	0·2	22	21·5				5	6	3	3	6	5	1	1	17	4	29	60		24·6	11 W	0·53	—0·47	0·39	8	21	0	0	2
Winnipeg	49 53	97 7	760	30·16	30·77	29·44	1·33	22·6	+ 4·2	28	47·0	28	— 6·0	22	20·2						11	6	1	5	21	1	7	7	1	60		29·2	22 SE	0·06	—1·42	0·04	2	24	0	0	2
*a*St. Alban's (Aweme)	49 42	99 33		28·80	29·38	28·27	1·11	21·5	+ 1·7	16	51·0	29	0·0	16	22·0	20·9																			0·29	+0·07	0·19	5	25	1	0	0
*Fort Osborne	49 53	97 11						18·4	— 0·2	15	49·0	18	— 6·0	22	—																										
Brandon	49 51	99 57	1176					21·5	+ 4·6	13	52·9	1	1·0	22	20·8				5	3	10	23	5	8	2	3	13	25	1	90	II	IV	2 NW	0·41	—0·83	0·20	3	27	0	0	0
Channel Island	52 18	97 23	710																																				
Elkhorn	49 58	101 13		21·5	+ 6·7	11	50·0	12	— 6·0	4	22·9																							0·00	—0·43	0·00	0	30	0	0	2
Stony Mountain	50 4	97 14	803	30·04	30·57	29·37	1·20	20·2	+ 0·3	19	43·0	29	0·0	7	17·2						5	6	0	7	15	1	7	19	0	60	II	V	3 NW	0·18	—0·22	0·10	3	29	0	0	3
*a*Barnardo	50 59	101 20		26·77	27·35	26·19	1·14	16·9	+ 0·8	15	42·0	18	—10·0	4	20·6				3	3	6	0	6	18	21	4	15	17	3	90	IV	VII	17 S	0·20	—0·38	0·20	1	27	1	0	0
Treherne	49 38	98 40	1212																																				
Rosebank	49 22	98 6	1400																																				
Hillview	49 55	100 33		20·9	+ 2·7	15	45·0	1-18	— 5·0	4	20·3								3	0	0	7	12	19	4	14	8	33	2	90				0·57	—1·06	0·20	5	25	0	0	5
Roseberry	49 14	99 20																																					
Pipestone	49 34	100 58	1400	23·2	—	3	53·0	1-10	— 3·0	4	21·7																							0·00	—	0·00	0	30	0	0	0
Bowsman	52 15	101 4	1060	16·6	—	1	47·0	13	—10·0	22	25·6										1	11	0	0	0	0	9	2	7	0	30				0·81	—	0·20	6	17	5	0	0
Ontario:																																							
Haileybury	47 29	79 39	687																																				
Sudbury	46 27	80 55	840																																				
Savanne	48 55	90 18	1506	17·3	— 1	6	14·2	1	— 8·0	23	18·2										1	2	1	3	4	4	3	23	53	90				2·10	+0·68	0·90	5	10	0	0	0
*Missanabie	48 21	83 28																																					
*Schreiber	48 50	87 15		23·3	—	6	45·0	2	— 4·0	22	—										33	0	3	3	7	0	0	5	39	90				1·50	—	0·50	5	18	0	0	0
Barrie	44 23	79 41	839																																				
Erasmus	43 58	80 22		29·5	—	6	62·4	1	9·2	29	11·4																							2·19	—1·21	0·66	7	23	0	0	0
Cottam	42 7	82 45		36·0	— 3	1	14·6	1	1·5·0	28	—										1	3	0	1	6	18	29	32	0	90				1·77	—0·72	0·68	6	24	1	0	0
Brantford	43 9	80 21	750	33·2	— 0	9	18·5	8·0	1	16·0	19	13·4																											
Parry Sound	45 19	80 0	635	30·05	30·54	29·42	1·12	29·7	+ 3	3	25·5	4·8	1	2·2	27	15·2			8	12	80	2	47	123	28	39	353	31	8	720	9·9	18·3	14 N	3·86	—0·51	0·68	19	11	0	0	0
Saugeen	44 30	81 21	658	30·06	30·54	29·59	0·95	34·7	— 1	6	25·5	6·3	3	17·0	28	12·4			9	17	211	16	44	21	137	52	72	105	62	720	13·5	35·0	12 NW	1·48	—2·22	0·35	16	10	0	0	1
Owen Sound	44 34	80 55	597					33·5	— 0	8	21	6·2	0	3·1	28	9·8					34	3	0	2	17	24	4	6	0	90				2·13	—1·84	0·60	14	16	0	0	0
Uplands	45 48	79 25		26·8	— 2	2	15·6	0·4	1	2·3	20	15·6									2	3	0	2	2	6	8	32	0	30				4·87	+1·17	0·90	14	16	0	0	0
(a)Durham	44 10	80 50																																					
Toronto	43 40	79 24	350	30·06	30·55	29·48	1·07	34·6	— 1	7	60·6	0·8	1	14·5	27	12·5	28·7	77	7	8	97	28	61	30	24	13	335	112	20	720	11·0	20·8	12 NW	1·66	—1·48	0·59	12	18	0	0	2
Welland	42 59	79 17	750	34·8	— 2	3	16·6	3·0	1	15·0	28	13·0																											
Peterborough	44 17	78 19	722	28·8	— 3	9	29·6	0·0	1	4·0	27	15·3																											
Lindsay	44 20	78 45	872	30·04	30·48	29·48	1·00	29·4	— 3	6	19·5	8·9	1	4·3	27	14·5			7	13	6	3	7	2	5	9	19	21	18	90	II	IV	14 NW	2·44	—0·89	0·37	12	15	0	0	1
Deseronto	44 11	77 4	264	31·4	— 3	9	19·5	8·4	1	4·0	27	16·8							6	7	14	7	6	8	1	6	32	14	2	90	9·3	20·0	14 W	3·25	+0·07	0·55	14	14	1	0	1

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PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, NOVEMBER, 1901.

a Barometer not reduced to sea level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	PRESSURE. Mean Reduced	Highest.	Lowest.	Range.	TEMPERATURE. Mean.	Difference from average.	Years observt.	Highest	Date.	Lowest.	Date.	Mean daily range.	Mean temperature of Dew point.	Mean relative Humidity.	Mean amount of Cloud.	No. of days completely Clouded.	DIRECTION OF WIND FROM N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of hours.	VELOCITY OF WIND Mean miles per hour.	Highest day's Velocity.	Date and direction from.	PRECIPITATION. Amount.	Difference from average.	Heaviest fall in month	Days with .01 or more	No of Fair days	No. of Auroras	No. of Thund. storms.	No. of Fogs.
	° ′	° ′		in.	in.	in.	in.	°	°		°		°																				in.	in.	in.					
QUEBEC—(*Continued.*)																																								
Percé	48 31	64 12	50	.....	.....	.....	.....	33·3	—	3	59·9	2	16·5	24	8·7	.....	.....	.....	.....	1	0	2	1	2	0	20	4	0	30	.....	.....	.....	3·42	—	1·20	12	16	0	0	1
St. Agathe des Monts	.....	.....	.....	.....	.....	.....	.....	23·1	—	3	48·0	5	— 7·0	28	13·5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	—	24	0	0	0
*a*St-Anne de la Pocatière	.....	.....	..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
NEW BRUNSWICK:																																								
Fredericton	45 57	66 36	164	29·89	30·42	29 01	1·41	31·8	— 0·6	28	64·7	1	4·6	24	16·2	24·2	66	7	11	8	6	1	7	9	11	10	23	15	90	7·3	21·3	11 NW	2·71	—1·44	1·22	10	18	0	0	3
Chatham	47 3	65 29	21	29·86	30·38	29·12	1·26	33·4	+ 0·7	27	64·0	1	10·0	24	12·5	.....	.....	6	7	2	5	8	0	0	7	11	15	12	60	.....	15·3	25 E	2·59	—1·16	0·72	12	14	0	0	0
Grand Manan	44 47	66 46	49	29·86	30·40	28·92	1·48	36·2	— 2·6	17	57·3	1	16·0	30	9·7	.....	.....	6	10	11	3	5	0	2	4	24	10	1	60	....	30·0	24 E	3·66	—1·96	1·56	11	13	0	0	1
•Point Lepreaux	45 4	66 28	30	.....	.....	.....	.....	35·0	— 2·6	22	53·0	2	12·0	30	—	.....	.....	6	5	22	13	3	3	2	9	6	20	0	78	11	VI	13 SE	2·50	—1·73	1·00	5	25	0	0	0
St. John	45 17	66 4	70	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dalhousie	48 4	66 22	39	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·86	—	0·76	4	25	0	0	0
St. Stephen	45 11	67 16	35	.....	.....	.....	.....	32·6	—	4	65·0	1	— 3·0	30	14·9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3·11	—	1·65	8	22	0	0	1
Moncton	46 9	64 45	..	.....	.....	.....	.....	33·0	—	4	66·0	1	6·0	23	15·1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3·88	—	2·04	8	22	0	0	0
Sussex	45 38	65 38	.....	.....	.....	.....	.....	32·7	—	4	57·0	1	12·0	12	12·9	.....	.....	.....	.....	2	5	3	2	0	2	7	9	0	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bathurst	47 39	65 42	.....	.....	.....	.....	.....	34·1	+ 1·3	25	59·0	4	5·0	23	18·3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·96	+0·64	2·10	8	22	0	0	0
NOVA SCOTIA:																																								
Halifax	44 39	63 36	97	29·93	30·37	29·02	1·35	40·1	+ 1·5	27	60·7	1	19·6	24	14·3	.....	.....	6	7	115	21	27	40	84	69	188	160	14	720	9·6	22·0	25 NE	2·56	—3·10	1·21	8	16	0	0	0
Sydney	46 10	60 10	35	29·81	30·36	29·06	1·30	39·4	+ 1·5	28	65·0	1	24·4	25	10·7	.....	.....	8	15	0	99	0	26	5	184	36	217	153	720	3·9	13·0	13 SE	3·68	—1·76	1·30	11	20	0	0	3
Truro	45 22	63 18	73	29·83	30·38	28·98	1·40	36·1	+ 0·4	21	67·3	1	11·0	24	15·2	.....	.....	8	12	4	18	8	4	9	8	18	10	11	90	I	III	3 NE	2·15	—2·40	0·40	13	13	0	0	4
Yarmouth	43 50	66 2	65	29·85	30·38	29·15	1·23	37·5	— 2·8	21	56·4	2	20·0	24	11·9	.....	.....	7	6	117	113	49	14	31	105	55	205	31	729	10·2	24·5	25 S	3·63	—1·53	0·98	17	12	0	0	0
Pictou	45 42	62 41	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Port Hastings	45 39	61 22	45	.....	.....	.....	.....	39·7	— 0·2	11	60·0	1	29·0	21	12·8	.....	.....	.....	.....	8	0	2	0	0	5	7	8	0	30	.....	.....	.....	3·01	—1·99	0·73	3	27	0	0	0
•Whitehead	45 15	61 8	20	.....	.....	.....	.....	40·0	— 0·0	18	53·0	2	27·0	30	—	.....	.....	.....	.....	16	13	11	4	5	13	15	11	2	90	.....	.....	.....	2·83	—1·59	1·22	5	25	0	0	4
•Sable Island, E. Pt	43 58	59 46	25	.....	.....	.....	.....	44·1	— 0·3	17	57·5	1	30·0	23	—	.....	.....	.....	.....	5	15	5	7	5	9	13	18	13	90	.....	.....	.....	2·10	—1·05	1·07	7	23	0	0	0
Sable Island M. station	43 57	60 6	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·53	—	0·40	11	19	0	0	0
Parrsboro'	45 23	64 19	40	.....	.....	.....	.....	36·7	—	5	63·0	1	12·0	24	12·9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2·71	—	1·10	9	21	0	0	0
Wolfville	45 7	64 20	.....	.....	.....	.....	.....	35·9	—	4	67·0	2	12·0	24	13·7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1·84	—	0·39	13	17	0	0	0
Bridgetown	44 49	65 16	.....	.....	.....	.....	.....	36·7	—	2	66·0	2	12·5	24	14·0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
P. E. ISLAND:																																								
Charlottetown	46 14	63 10	38	29·83	30·37	28·96	1·41	37·2	+ 1·6	26	59·4	1	18·0	30	10·6	.....	.....	7	12	102	92	12	77	10	118	48	230	31	720	7·9	16·3	11 NW	2·16	—1·81	0·63	13	15	0	0	0
Summerside	46 18	63 51	.....	.....	.....	.....	.....	36·2	—	4	58·0	2	18·5	24	10·1	.....	.....	.....	.....	20	7	0	3	8	0	5	17	0	60	.....	.....	.....	2·09	—	0·55	15	15	0	0	0
Hamilton	46 25	63 8	.....	.....	.....	.....	.....	36·0	—	4	60·0	1	21·0	24	9·2	.....	.....	.....	.....	7	2	1	1	2	5	1	11	0	39	.....	.....	.....	1·91	—	0·63	12	18	0	0	0
Murray River	46 0	62 35	35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
NEWFOUNDLAND:																																								
St. Johns	47 34	52 42	125	29·74	30·22	29·20	1·02	39·1	+ 2·4	29	58·0	16	16·0	25	8·1	33·1	75	8	16	17	8	6	1	21	1	4	2	0	60	10·6	22·7	18 NE	7·89	+2·32	1·50	18	20	0	0	9
Channell	47 37	59 9	50	.....	.....	.....	.....	39·1	+ 3·8	15	50·0	3	21·0	25	6·7	.....	.....	7	5	4	3	8	26	8	1	18	18	4	90	III	V	25 E	3·37	—3·09	0·74	12	18	0	0	1
•Cape Norman	51 38	55 52	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
•Amour Point	51 28	56 51	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
•Point Rich	50 42	57 25	35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
BERMUDA:																																								
Prospect	37 20	64 50	151	29·92	30·26	29·36	0·90	65·8	— 2·6	10	74·3	6	53·8	26	8·8	.....	.....	6	2	5	8	0	1	1	12	10	16	7	60	.....	29·6	3 NE	7·82	+2·44	1·62	23	6	0	1	0

OBSERVATIONS AT STATIONS REPORTING RAIN, SNOW, WEATHER, &c., DURING NOVEMBER, 1901.

STATIONS.	Rainfall.					Snowfall.				Remarks.
	Amount in inches.	No. of Days ·01 or Over.	No. of Fair Days.	Heaviest Fall in Month.	Date.	Amount in inches.	No. of Days.	Heaviest Fall in Month.	Date.	
	in.			in.		in.		in.		
British Columbia—										
Naas Harbour	8·52	17	13	1·50	27	1·0	2	1·0	10	
Port Essington	17·19	27	3	1·46	15	0·5	2	0·5	25	Tides after full moon, large. None higher for 18 years.
Nanaimo City	8·32	22	8	1·88	26	.....	.....	.....	.....	
Caulfields	8·85	23	4	1·57	3	.....	.....	.....	.....	Thunderstorm 15.
Coldstream Lake	14·83	24	6	1·76	22	.....	.....	.....	.....	
Kuper Island	9·76	22	8	1·92	27	.....	.....	.....	.....	Fog 28.
Royal Oak	8·55	19	11	1·75	11	.....	.....	.....	.....	
Coquitlam	12·86	20	11	1·50	27	.....	.....	.....	.....	
N. W. Territories—										
Strathcona	.....	.....	.....	.....	.....	10·5	9	4·0	5	3rd, 2 ; 29th, 50.
Weyburn	0·50	2	28	0·50	22	0·5	1	0·5	21	Snow all gone on 22.
Broomhill	.....	.....	.....	.....	.....	3·0	3	2·0	1	
Saltcoats	.....	.....	.....	.....	.....	1·5	2	1·0	8	27th, 50.
Beaver Hills, N.E.	.....	.....	.....	.....	.....	2·0	2	1·0	19	
Innisfail	0·18	1	25	0·18	30	1·7	4	1·0	21	
Dirt Hills	.....	.....	.....	.....	.....	3·0	1	3·0	21	Fog 8, 20, 21, 24.
Didsbury	.....	.....	.....	.....	.....	3·0	3	2·0	5	Frost all out of ground 27. Farmers harrowing.
Regina	.....	.....	.....	.....	.....	*	2	*	.....	
Coutts	.....	.....	.....	.....	.....	0·5	2	0·3	5	Very little frost.
Beaver Hills, E.	.....	.....	.....	.....	.....	3·3	6	1·5	5	Very mild and fine.
Manitoba—										
Morden	R	1	27	R	23	3·0	2	3·0	4	
Norquay	0·30	2	27	0·30	23	2·0	2	2·0	6	30, no snow on ground.
Belmont	0·03	1	26	0·03	22	*	3	.....		
Pembina Crossing	R	.....	25	R	10	.....	5	.....		Fog 25,26,27; crows seen 12.
Oakbank	.....	.....	.....	.....	.....	5·0	4	3·0	5	30, not much snow on grd.
Deloraine	.....	.....	.....	.....	.....	1·5	4	1·5	21	25, 26, dense fog.
Turtle Mountain	R	.....	28	R	30	*	3	*	..	25, 26, dense fog.
Ontario—										
Providence Bay	1·70	15	15	0·73	12	8·8	7	4·0	28	
*Lion's Head	1·43	6	.....	0·48	11	.....	.....	.....	.....	
Jermyn	1·84	6	24	0·75	11	8·0	2	5·0	29	
Uxbridge	1·52	4	23	0·71	11	9·2	4	3·7	28	
Georgetown	1·16	12	14	0·38	11	5·3	10	2·0	29	Fog 11
Croydon	0·95	6	24	0·95	12	9·0	5	4·0	29	
Parma	0·99	2	22	0·96	12	14·0	6	4·0	26	
Wooler	1·20	3	21	0·90	11	3·5	6	2·0	25	Fairly good sleighing on 30.
Westport	1·06	5	15	0·62	13	14·6	12	3·0	25	
Midland	1·80	5	19	0·65	11	16·5	6	5·0	14	30, 4 in. snow on ground.
Lansdowne	.....	1	24	.....	12	4·0	5	1·0	29	
Sunshine	1·67	5	18	0·68	12	7·0	7	3·0	14	
Westminster	1·53	3	21	1·15	11	8·0	6	6·0	12-13	
Aurora	0·83	6	20	0·46	11	10·8	6	4·8	14	
*Watford	2·25	2	.....	1·20	18	.....	.....	.....	.....	
Wyoming	1·15	3	25	0·65	11	3·0	2	2·0	18	
Missanabie	0·20	1	21	0·20	11	21·0	8	5·0	23	
Kitley	1·44	5	19	0·50	13	11·0	7	3·0	15	
Mortague	1·05	1	27	1·05	12	6·0	2	3·0	26	
Princeton	1·33	2	22	1·33	11	6·0	6	4·0	28	
Orangeville	1·55	6	17	0·72	12	5·9	7	2·5	25	
Dutton	1·01	5	20	0·50	11	0·5	4	0·3	28	
Scarborough	1·50	5	19	0·67	11	2·2	9	1·5	29	Fog 11.
Deer Park	1·26	5	22	0·44	12	3·2	4	1·3	29	
Cayuga	1·75	5	19	0·85	12	2·0	4	1·0	28	
Ursa	1·62	5	18	0·72	11	12·0	8	4·0	28	4 in. snow on ground on 30.
Huntsville	0·35	1	24	0·35	12	8·5	5	5·5	25	
Goderich	1·20	5	21	0·40	11	9·0	6	3·0	28	16, very stormy. Wind 48 miles per hour.
Arden	1·29	11	17	0·42	12	9·0	5	4·0	29	
Emsdale	1·50	6	16	0·78	11	17·3	8	6·0	25	12 in. snow on ground on 30.
Port Burwell	2·06	5	22	1·34	12	7·0	3	6·0	14	
Wiarton	1·40	6	20	0·65	11	5·0	4	2·0	28	
Dealtown	2·08	8	22	1·31	11	*	1	*	18	
Elgin	.....	.....	.....	.....	.....	8	2	5·0	13	
New Brunswick—										
Point Escuminac	1·00	5	20	0·41	25	5·3	5	3·1	26	
Dalhousie	0·47	2	24	0·25	14	26·0	4	24·0	25-26	26 in. snow on ground.
Nova Scotia—										
Port Morien	3·42	8	22	1·05	25-26	.....	.....	.....	.....	

*No snow measured.

PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY DURING WHICH THE SUN WAS ABOVE THE HORIZON IN THE MONTH OF NOVEMBER, 1901.

	Hours Ending															
	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.
Victoria			0·00	0 00	0 03	0 12	0 19	0 19	0 26	0 27	0 24	0 14	0 02			
Nanaimo			0·00	0 00	0 05	0·17	0 18	0·23	0 22	0·22	0 15	0·12	0 01			
Agassiz			0 00	0 00	0·02	0·04	0 08	0 14	0·11	0 08	0 08	0·07	0 01			
Battleford			0·01	0 20	0 33	0 43	0 51	0·54	0·53	0·44	0·22	0·07	0·00			
Indian Head			0 00	0·00	0 01	0 10	0·27	0·43	0 56	0·58	0 58	0·19	0 00			
Brandon			0·00	0 21	0 41	0·50	0 52	0·55	0·57	0·50	0·35	0·02	0 00			
Winnipeg			0·04	0·26	0·50	0 55	0 61	0·53	0·50	0·36	0·22	0·00	0 00			
Durham																
Woodstock			0·00	0 04	0·25	0·35	0·46	0·43	0 50	0·36	0·27	0·24	0·09			
Toronto			0·00	0·05	0·19	0·27	0·30	0·39	0 44	0·34	0·36	0·34	0·10			
Lindsay			0·00	0 08	0·21	0·29	0·41	0·42	0·39	0·31	0 33	0·30	0·10			
Barrie			0·00	0·12	0·20	0·25	0·31	0·34	0·35	0·38	0 30	0·20	0·07			
Kingston			0·00	0 09	0·20	0·23	0·28	0·29	0 27	0·29	0 30	0·27	0·08			
Ottawa			0·00	0·05	0·21	0·32	0·33	0·32	0·33	0·27	0·29	0·26	0·05			
Montreal			0 00	0 00	0·09	0·27	0·31	0 32	0·25	0·28	0 26	0 20	0·01			
Fredericton			0·06	0·25	0·37	0·44	0·47	0 46	0·44	0·40	0 27	0·12	0·00			

	Victoria.	Nanaimo.	Agassiz.	Battleford.	Indian Head.	Brandon.	Winnipeg.	Durham.	Woodstock.	Toronto.	Lindsay.	Barrie.	Kingston.	Ottawa.	Montreal.	Fredericton.
Mean proportion for month (*Constant sunshine being 1.*)	0 15	0·15	0·07	0·36	0·30	0 40	0·39		0·31	0 29	0·30	0 26	0·24	0·25	0·24	0·34
Difference from average	− 0·05	—	− 0·10	+ 0 05	+ 0·06	0 00	+ 0·05		+ 0·06	+ 0 01	+ 0 05	+ 0 07	− 0·03	—	− 0·04	+ 0 02
Maximum daily amount	0 72	0·72	0·46	0·93	0·59	0·80	0·93		0·90	0·87	0·92	0·79	0·95	0 90	0·91	0 91
Date	5	5	7	18	28	24	15		1	1	10	19	10	2	10	23
No. of days completely clouded	10	16	21	7	6	8	8		10	7	8	9	11	11	15	13

Thunder recorded on :—

1. N. Nicomen.

5. N. Nicomen.

6. Port Bobs.

7. Victoria.

8. Alberni.

11. Bruce Mines, Cockburn Island.

15. Victoria, Nanaimo, Caulfields, Clayoquot.

20. Bermuda.

22. Clayoquot, Alberni, Cape Scott, Port Bobs.

Aurora recorded :—

Where the class of aurora is noted by the observer, it is given (I) being the brightest, (IV) the feeblest in brilliancy.

1. Melfort, IV.

2. Ursa, *bright.*

3. Quebec, III ; Barnardo ; Gravenhurst, III ; Stratford, IV ; Chicoutimi ; Cape Chatte, III ; Cape Magdalen ; Melfort, IV ; Bowsman, III ; Emsdale, III.

4. Chicoutimi.

5. Melfort, IV ; Bowsman, IV.

6. Bowsman, IV.

8. Melfort, IV ; St. Albans, IV ; Bowsman, IV.

9. Battleford, IV ; Brantford, III ; Emsdale, IV.

10. Red Deer, III.

11. Bowsman, IV.

12. Battleford, IV.

18. Red Deer, IV.

21. Red Deer, IV.

FORECASTS FOR NOVEMBER, 1901.

The forecasts issued by this office at 11 p m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of predictions issued during the month was 1078. These were divided as follows:—

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Percentage
Manitoba	81	63	13	5	85·8
Lake Superior	121	103	11	7	89·7
Lower Lake Region	115	101	9	5	91·7
Georgian Bay	115	97	12	6	89·6
Ottawa Valley	106	89	14	8	84·0
Upper St. Lawrence	106	83	18	5	86·8
Lower St. Lawrence	105	79	18	8	83·8
Gulf	112	85	16	11	83·0
Maritime Provinces, West	108	87	11	10	85·6
Maritime Provinces, East	109	84	15	10	83·9
Total	1,078	862	141	75	86·5

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used

R. F. STUPART,
Director.

Meteorological Office, Toronto,
26th December, 1901.

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METEOROLOGICAL SERVICE, DOMINION OF CANADA.

Monthly Weather Review.

VOL. XXV DECEMBER, 1901. No. 12

INTRODUCTION.

In compiling the present Review the principal data made use of are the telegraphic reports of observations received at this office for the purpose of weather forecasting, and reports by mail from voluntary observers and storm signal agents. For the material used in tracing the paths of areas of high and low pressure in the United States, we are indebted to the Chief of the Weather Bureau, Washington, D.C.

REMARKS UPON THE WEATHER.

The chief characteristics of the month of December were excessive mean temperature everywhere, excepting in the Province of Ontario where, on the contrary, it was somewhat colder than usual at most places, also excessive precipitation in southern Ontario and the Maritime Provinces, light precipitation in British Columbia and little bright sunshine in Manitoba and Western Quebec. Elsewhere, with some local exceptions, the departures from normal were unimportant.

The weather in British Columbia was generally mild and dry, the temperature in most districts being above average and the precipitation below. Comparatively little snow fell during the month and no very low temperatures were recorded. Gales occurred on the coast on the 3rd and 4th, also on the night of the 25th and part of the 26th. At most places there was much bright sunshine, it being generally in excess of the average.

In the North-west Territories the weather was exceptionally mild and enjoyable, but clouded skies were rather more frequent than usual. The precipitation which was chiefly snow, varied with the district, but the departures in quantity from the normal were generally unimportant. Chinook winds were somewhat frequent, and the snow that fell in most localities was soon melted. At Calgary, the temperature rose to 60° on the 29th, but at Regina it fell to —37·0 on the 14th. The open weather was very favourable for cattle grazing.

The weather conditions in Manitoba were very similar to conditions in the Territories, excessive mean temperature and deficient bright sunshine being reported from most districts. The precipitation also varied with the district, but with a few exceptions, the departures from the normal were not important. On the last day of the month there was comparatively little snow upon the ground, and there was no sleighing.

In Ontario the weather was somewhat colder than usual in most districts, but at a few places in the eastern and northern portion, the mean temperature, on the contrary, was a little above the average. The precipitation was excessive, excepting in the northern portion, where at many places it was deficient. Clouded skies were rather frequent, and in eastern districts the proportion of bright sunshine was slightly deficient, elsewhere, however, it was a little above the average. Temperatures well below zero were recorded at most places. Five gales occurred, this number being less than usual. There was good sleighing in northern districts but elsewhere the snow was insufficient.

The weather in the Province of Quebec was exceptionally mild and dull, the mean temperature being in excess of the average, whilst in most districts, the proportion of bright sunshine was below. The precipitation which was chiefly snow, varied with the district, it being below the average in some places and above in others. Temperatures well below zero were recorded in most localities. Seven gales were reported, the heaviest occurring on the 10th and 31st. There was good sleighing during the greater portion of the month.

The weather in New Brunswick was generally mild and wet, both the temperature and precipitation being above average. Heavy rains and high temperatures late in the month quickly dissolved the snow that had fallen and generally throughout the Province rivers which had closed were again open on the last day of the month. Gales were rather frequent, but the highest velocity recorded was 46 miles at St. John on the 10th. The proportion of bright sunshine did not depart much from the normal.

In Nova Scotia the weather conditions were similar to conditions in New Brunswick, excepting that the excess of precipitation in the first mentioned province was somewhat greater. In most districts the weather was exceedingly changeable, clouded skies with snow or rain occurring frequently; and the snow that fell being quickly melted, left the ground bare on the 31st, in most localities.

The weather in Prince Edward Island was exceedingly fine and mild, and the precipitation did not depart much from the normal. The lowest temperatures recorded were above zero, and although some snow fell, it soon disappeared. Generally throughout the Province there was little frost in the ground, and the streams were open.—F. F. Payne.

ATMOSPHERIC PRESSURE.

The widest departures from normal atmospheric pressure occurred in the extreme western and eastern portions of the Dominion. Victoria, B.C., recording a positive departure of 0·18 of an inch, and Sydney, C.B., a positive departure of 0·11. The largest negative departures about 0·02, occurred in eastern Assiniboia and in Southern Ontario. The pressure in Quebec and Northern Ontario was very generally 0·02 higher than the normal.

HIGH AREAS.

No. 1 was a moderate area passing off the South Atlantic coast during the 1st. No. 2 was over the Canadian North-west Territories on the morning of the 1st, and passed slowly eastward north of the lakes with increasing energy and lowering temperature; it was centred in the Ottawa Valley on the 6th and thence passed east carrying the cold wave into the Lower St. Lawrence Valley and Maritime Provinces, it was the only high area of the month that passed north of the Lake Region. No. 3 appeared near the North Pacific Coast on the 7th, and passed into the Southern States as a somewhat feeble area; it then, between the 10th and 13th, moved north-east to the Maritime Provinces and during the two following days was off the coast producing in conjunction with low area No. 8, easterly and southerly gales on the seaboard. No. 4 appeared north of British Columbia on the 11th and moved slowly south-east accompanied by a pronounced cold wave and the lowest temperatures of the month were recorded in the Territories and Manitoba between the 13th and 15th. After reaching the Mississipi Valley it became less important but the cold wave although gradually moderating was felt as far east as Nova Scotia. No. 5 appeared on the North Pacific Coast and moved across the Territories where the temperatures continued low; its subsequent course is not very clear. No. 6 hovered over the western portion of the continent for several days and then a part of it during the 20th and 21st moved eastward south of the lakes accompanied by low temperatures. The other portion hovered in the west and with No. 7 caused a high barometer over the western portion of the Continent until the end of the month.

LOW AREAS.

There was an unusually large number of low areas during December; no less than eighteen were sufficiently well marked to be charted and there were besides these other minor depressions whose paths were too erratic to allow them to be accurately plotted.

No. 1 was a continuation of No. 10 on the November chart. On the morning of the 1st of December it was centred near the Straits of Mackinaw whence it traversed the Ottawa and St. Lawrence Valleys reaching the Gulf of St. Lawrence on the night of the 2nd. It was not very energetic but it caused strong winds and moderate gales in Ontario and Quebec together with moderate local falls of snow and rain. No. 2 was a shallow depression which travelled between the 1st and 2nd from Northern British Columbia to Southern Dakota and then dispersed. No. 3 was first shown in the Gulf of Mexico near the Coast of Texas on the 2nd. It travelled with rapidity over the Southern States to the Atlantic, then skirted the United States seaboard and passed across the Maritime Provinces as a very energetic disturbance accompanied by heavy gales and heavy snow and rain, and by gales and moderate snowfalls in Quebec. No. 4 moved on to the British Columbia Coast on the 3rd, as an important disturbance causing a heavy gale. It, however, quickly diminished in energy and after reaching, on the night of the 4th, the Qu'Appelle Valley it dispersed. Its presence in the North-west Territories was marked both there and in Manitoba by light local snow and rain and on the British Columbia coast by a heavy gale. No. 5 was situated on the borders of Wyoming and Dakota on the morning of the 6th and dispersed over Lake Superior on the night of the 7th. It was of feeble intensity but brought a few light snowfalls in Northern and Eastern Ontario. No. 6 travelled between the 7th and 9th from the neighbourhood of Colorado and Kansas over the Lower Lake Region and down the St. Lawrence Valley to the Gulf. It gave moderate falls of snow and rain in Ontario and Quebec and a few scattered showers or snow flurries in the Maritime Provinces. No. 7 was first shewn on the coast of Texas on the morning of the 8th. It travelled quickly into the Lake Region and down the St. Lawrence Valley developing at the same time into an energetic disturbance and causing gales from Ontario to the Maritime Provinces together with snow and rain, the precipitation being nowhere excessive. No. 8 developed with rapidity on the 12th in the Mississippi

Valley and between the 13th and 16th passed slowly over Ontario, Quebec and the Maritime Provinces, attended by high winds and snow and rain, chiefly the latter. No. 9 was situated in the neighbourhood of New Mexico on the 12th, whence it passed over the Gulf and Southern States to North Carolina and then up the Atlantic to Cape Breton where it became merged with the last mentioned area. It brought a moderate gale over the Maritime Provinces together with moderate falls of snow and rain. No. 10 was an Atlantic area which, although it passed some distance to the southward of Nova Scotia, it between the 17th and 18th caused a fall of snow throughout the Maritime Provinces and also in the Eastern part of Quebec. No. 11 moved into the North-west Territories on the 20th and throughout it was a wide spread and energetic system, being especially so as it traversed Eastern Canada. It broke up the spell of cold weather which had been prevailing from Ontario to the Maritime Provinces and it caused strong winds on the Lakes and a fresh to heavy gale over Eastern Canada as well as snow, sleet and rain. No. 12 was a very shallow area which formed near Indian Territory on the night of the 23rd and dispersed on the 25th to the southward of the Lower Lake Region. It brought a light snowfall to Southern Ontario during the night of the 24th. No. 13 was centred in Northern British Columbia on the morning of the 26th as a depression of much energy attended by a heavy gale, but in its advance over the Territories and Manitoba it soon diminished and on the 28th it dispersed over Lake Superior. It was accompanied over its course by moderate snowfalls. No. 14 formed with great rapidity during the night of the 26th along the Middle Atlantic Coast and on the 27th it skirted Nova Scotia causing a moderate gale in the Maritime Provinces as well as a heavy snow storm. No. 15 passed over the northern portions of the Territories and Manitoba between the 27th and 28th accompanied by light falls of snow or sleet and then moved out of the range of observation. No. 16 travelled with great rapidity from Northern Texas, where it was situated on the evening of the 27th, to the Gulf of St. Lawrence, its centre passing some distance to the southward of the Lakes. It caused light local snowfalls in the Lake Region, a general snowfall in the Ottawa and St. Lawrence Valleys and very heavy rains and moderate gales in the Maritime Provinces. No. 17 was seemingly subsidiary to No. 16. It passed up the United States Atlantic Coast between the 29th and 30th bringing a continuance of the wet weather in the Maritime Provinces. No. 18 was situated in Northern Alberta on the morning of the 29th and passing over Canada well to the northward it reached the Gulf of St. Lawrence on the 31st. It brought very strong winds from the Lakes to the Maritime Provinces as well as some light local snowfalls.

WINDS.

In British Columbia, on Vancouver Island and the Lower Mainland, the winds were variable, no one direction being particularly prevalent. The marked features of the wind element were, however, two severe gales, one of which occurred on the 3rd and 4th, and the other of still greater violence on the night of the 26th, when south-west, 64 miles an hour was recorded at Victoria, some of the gusts reaching the rate of 72 miles an hour.

In the North-west Territories and Manitoba, the westerly direction was the most in evidence. For about half of the month the force was from fresh to strong and the other half, light to moderate. The force of a gale was reached on several occasions.

In the Lake Region, and the Ottawa and Upper St. Lawrence Valleys, the wind had a westerly tendency on sixteen and seventeen days respectively; at other times they were variable, fresh to strong breezes were comparatively frequent, and the force of a gale was reached on the 2nd, 9th, 13th, 22nd and 31st, the last being the heaviest of the series.

In the Lower St. Lawrence Valley and the Gulf, no one direction was particularly marked, gales occurred on the 2nd, 4th, 10th, 14th, 24th, 29th and 31st; several were of long duration, and four of a pronounced heavy type.

In the Maritime Provinces, the westerly direction was the most general; gales were experienced on the 4th, 10th, 15th, 24th, 27th, 29th, and night of the 31st. The heaviest gale of the series was on the 4th, and those of the 10th and 31st were also of the heavy type.

The display of storm signals was discontinued on the Lakes, for the season, after the 6th, but at Ocean stations where winter navigation is pursued, the storms of the 4th, 10th and 13th, were successfully warned, but for those of the 27th and 29th, the warning was not issued early enough for several points; the storms of the 24th and 31st were not warned, and a warning issued on the 17th was not justified by subsequent high winds.

BRIGHT SUNSHINE.

Bright sunshine was in excess of the average in British Columbia and the more western portions of Ontario, and less than average in other parts of the Dominion. The largest percentages of the possible amount recorded, were 30 at Fredericton, and 29 at Toronto, and the smallest 9 at Montreal, and 17 at Barrie and Ottawa. The highest positive departure from average was at Toronto, and the largest negative at Montreal.

TEMPERATURE.

The more western and south-western counties of the Province of Ontario were the only portions of the Dominion where the mean temperature of the month was below average, the greatest departure, about 5°, being in Essex. Near the shores of Lake Ontario and the Georgian Bay the mean was nearly average, and thence northward and eastward a positive departure increased to 3° or 4° in the Ottawa Valley and Western Quebec, and to 6° in Eastern Quebec. In Nova Scotia and Prince Edward Island the average was exceeded by between 3° and 6°; in Manitoba and Assiniboia by nearly the same amount, while further northward and westward in our Territories, in Saskatchewan and Alberta, the positive departure from average was from 6° to 9°. In British Columbia a positive departure of 3° near the Selkirk Range diminished gradually towards the Coast.

The Highest and Lowest temperatures recorded in each Province during December, 1901, were:

British Columbia,	62·0 on 29th at Port Simpson; and on 25th at Clayoquot,	— 7·0 on 20th at Stuart's Lake.
North-west Territories,	60·0 on 29th at Calgary,	—40°·0 on 13th at Athabasca Landing.
Manitoba,	43°·0 on 21st at Pipestone,	—36°·0 on 13th at Treherne.
Ontario,	62°·0 on 1st at Stony Creek and St. Catharines,	—48°·8 on 15th at White River.
Quebec,	72·0 on 15th at Richmond,	—24°·8 on 17th at Chicoutimi.
New Brunswick,	57·0 on 10th at Grand Manan,	—14°·0 on 22nd at Chatham.
Nova Scotia,	62°·0 on 15th at Bridgetown,	—11°·5 on 23rd at Bridgetown.
Prince Edward Island.	48°·0 on 25th at Summerside,	3°·0 on 23rd at Hamilton.

PRECIPITATION AND DEPTH OF SNOW.

The precipitation was less than average in British Columbia, over the greater part of Manitoba, and also over portions of Quebec and Northern Ontario. In all other parts of the Dominion it was greater than average, the most marked excess being in Nova Scotia.

At the close of the month, the lower levels in British Columbia, the larger part of Alberta and the western portions of Assiniboia were bare of snow, as were also Nova Scotia and Prince Edward Island and the southern part of New Brunswick. From Assiniboia eastward over Manitoba, Ontario and Quebec and Northern New Brunswick, the ground was snow-covered, the greatest depth reported being between 16 and 20 inches in Quebec and Northern Ontario.

NOTES.

FROST AND PEATY SOILS.

We have often noticed when the temperature of the air during the night has been at or near the freezing point dark wet peaty soil nearly covered with vegetation devoid of hoar frost, whilst vegetation on clay land immediately contiguous to it has been white with rime, and the question arises, does the wet humus more readidly conduct the heat from below or has the black loam absorbed more heat during the previous day than the lighter coloured clay land,—*i.e.* sufficient heat to keep the air in contact with it above the freezing point. In a recent issue of *Nature*, Mr. W. R. Fisher draws attention to this subject and suggests that as wet humus is a good conductor, the heat of clay earth covered with humus is more readily conducted; and he cites as an illustration that on the cranberry swamps in Carolina when frost is feared during the blossoming period water is let in. In North-west India on frosty nights vegetable gardens and sugar cane plantations are also irrigated in order to obviate danger from frost. While we are not quite convinced that the frost is prevented by the good conductivity of the wet humus the lesson to be learned from this, which should be noted by those in Canada having the means of irrigation, is that killing frost may often be prevented by saturating the land with water.

INFLUENCE OF FROST ON COMMERCE AND POLITICS.

The above subject which forms the title of a paper in the *Popular Science Monthly* for December by H. H. Clayton should receive far more attention than it does and we are always pleased to welcome any new attempt to disseminate the facts in connection therewith. Mr. Clayton states that every severe financial panic in the United States has been closely associated with a protracted period of deficient rainfall and he clearly indicates the close relation of national crises with changing meteorological conditions of successive years. The "Boxer" outbreak in China was probably caused by the scarcity of rain during the preceding autumn, the consequent impoverishment causing discontent. In the war resulting therefrom the Allies at Tientsin were probably saved from defeat by a heavy rainfall which obliged the Chinese to retire. Several other instances are cited in which disasters have been caused or averted by meteorological conditions which at once

suggests the necessity of more extensive study in the hope of attaining to more exact weather forecasting. Mr. Clayton also calls attention to the need of more opportunity in universities for the study of the influences of the atmosphere upon health, commerce and politics in all which we heartily concur.

CLOTHING AND TEMPERATURE.

At this time of the year when the question of clothing in Canada is all important some scientific data upon the subject would be exceedingly useful. What is desired chiefly are facts as to the best material for temperate climates. Disputes as to whether heavy or light woollen underclothing are best are often heard and we are not aware of any published observations in this direction. As on a cold day, without artificial heat, all the warmth we have is obtained from our own bodies it is necessary to use a material that will not allow this heat to escape. If the material is hard and tightly fitting, the heat from the body will be more quickly radiated and lost, and we are inclined to think soft loose woolen clothing best. Moisture from the body, however, has to be considered together with other points which could only be settled by scientific investigation. A few years ago Dr. W. F. R. Phillips of the United States Weather Bureau undertook some observations of body temperature, the clothing worn during the series consisting of a serge coat and vest, a linen shirt, and woollen undershirt. Dr. Phillips goes on to say "This weight of clothing was very comfortable while indoors and with the addition of an overcoat was ample for outdoors but while making the observations no overcoat or additional clothing was worn. The coat and vest were single, lined with light weight material, the linen shirt of the usual quality, and the woollen undershirt of the material known as fleece lined flannel." The results obtained and given below are deduced from observations on eleven days, the readings being first taken indoors then after being outdoors ten and twenty minutes respectively, and again after being indoors ten minutes.

Average of Eleven Days Observations.

	In doors.	Out 10m.	Out 20m.	In 10m.
Temperature in and out doors	76·5°	39·3°	39·3°	75·7°
" between coat and vest	84·9°	65·3°	61·1°	77·9°
" " vest and linen shirt	87·4°	74·6°	69 7°	80·8°
" " linen shirt and woollen undershirt	90·3°	81·3°	78·1°	86·3°
" " woollen undershirt and skin	95·5°	93·8°	92·6°	93·1°
" under tongue (average of six days)	98·5°	98·3°	98·0°	98·0°

F. F. P.

PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, DECEMBER, 1901.

a Barometer not reduced to Sea Level. * Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	Pressure. Mean reduced.	Pressure. Highest.	Pressure. Lowest.	Pressure. Range.	Temperature. Mean.	Temperature. Difference from average.	Temperature. Years observed.	Temperature. Highest.	Temperature. Date.	Temperature. Lowest.	Temperature. Date.	Temperature. Mean daily range.	Mean temperature of Dewpoint.	Mean relative Humidity.	Mean amount of Cloud.	No. of days completely clouded.	Direction of Wind from. N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of hours.	Velocity of Wind. Mean miles per hour.	Highest day's velocity.	Date and direction from.	Precipitation. Amount.	Difference from Average.	Heaviest fall in month.	Days with .01 or more	No. of Fair days.	No. of Auroras.	No. of Thunder storms.	No. of Fogs.
	° ′	° ′		in.	in.	in.		°	°		°		°																			in.	in.	in.					
BRITISH COLUMBIA:																																							
Victoria	48 24	123 19	85	30 17	30·58	29·09	1·49	43·0	+ 1·8	10	53·2	22	29·5		12 6·2			8	13	274	48	80	114	35	76	83	10	24	744	8·1	27·5	26 W	3·46	− 4·52	0·80	20	9	0	0	0
Barkerville	53 2	121 35	4180	30·05	30·76	29 40	1·36	24 1	+ 3·1	13	40 6	30	− 4·0		12 10·8			7	13	0	0	0	0	4	4	5	1	48	62		VI	L S	4·20	+ 1·03	0·80	12	18	0	0	0
Agassiz	49 14	121 31	52					37·2	+ 1·2	11	48 0	24	25·0		12 9·7			4	0	39	0	0	0	12	0	42	0	0	93				4·76	− 4·59	1·13	14	17	0	0	0
Port Simpson	54 34	130 26	26	29·89	30·47	29 31	1·16	39·6	+ 3·4	14	62 0	29	24·0		12 11·2			10	30	12	1	0	0	12	11	0	4	22	62		III	17 SW	13 12	− 0·21	3·38	21	10	0	0	1
Spence's Bridge	50 23	121 20	770																																				
Hazelmere	49 3	122 43																																					
Revelstoke	51 0	118 6	1476																																				
Kamloops	50 41	120 29	1193	30·15	30·75	29·33	1·42	31·3	—		8 50·5	2	10 5		12 10·1			7	12	0	0	5	13	0	0	2	5	37	62		VII	29 SE	0 46	—	0·20	3	28	0	0	0
Princeton	49 29	120 29	1650					24·7	—		6 44·0	1	2·0		12 14·3																			0 68	—	0·35	5	26	0	0	0
Pilot Bay	49 39	116 55						33·4	—		6 46·0	7	20·0		13 8·5																								
Rivers Inlet	51 39	127 19	19	30·07	30·50	29·14	1·36	37·6	—		7 46·5	29	26·1		13 6·5	36·2	96	7	14	6	1	3	17	0	3	1	0	62	93	I	III	19 N	20·78	—	2·52	21	9	0	1	0
Stuart's Lake	54 28	124 12	1800					40·2	—		7 48·0	1	— 7·0		20 18·0																			1·42	—	0·32	7	24	0	0	0
French Creek	49 20	124 36						38 1	— 0·1		9 56·0	4	23·0		12 12·6																			3·69	−2·79	0·93	12	19	0	0	0
Coldstream	50 14	119 15	1246																																				
Nanaimo	49 10	123 57						39 7			1 52·1	4	23 7		12 11·0	39·2	94	7	11	2	8	0	13	10	16	10	11	23	93	V	31 0	26 NW	4·70	—	1·25	21	9	0	0	6
Chilliwack	49 10	121 57	21	30·14	30·56	29 37	1·19	38 6			4 53·0	1	20 0		13 10 7	36 5	93	6	3	1	10	44	7	2	13	4	1	0	82	14·3	22 0	26 S	5·54	—	1·62	19	12	0	0	2
Quatsino	50 32	128 3						40 9			6 50·0	7	28·0		12 8·3																			20 88	—	2·30	24	7	0	0	0
Midway	49 0	118 46	1800					20 4			7 34·0	1	4 0		17 9·4																			0 30	—	0·20	2	29	0	0	0
Enderby	50 32	119 8	1180																																				
Nicola Lake	50 9	120 39	2120					29 9	—		6 50·5	30	10 0		21 15·6																			0 37	−0·12	0 13	5	24	0	0	0
West Kootenay	49 20	117 50						35 1			6 43·0	1	12 0		18 11·3																			1·72	—	0·33	10	21	0	0	0
Garry Point	49 21	123 17						38·3			6 52·0	1	23 0		12 10 1					1	14	28	2	9	0	4	8	27	93	7·7	36 0	26 NW	4·08	—	0·93	15	16	0	0	0
Tobacco Plains	49 1	115 5	2300					28·9			6 49·0	1	5 0		19 15·0																			0 65	—	0·21	5	26	0	0	0
Vancouver	49 17	123 5	195					37·9			3 52·9	2	22·0		11 11·9																			8 69	—	1·73	17	14	0	0	6
New Westminster	49 13	122 54	330	30·19	30 61	29·60	1·01	37·5			3 50·2	1	21 0		12 8·6			7	13	5	1	20	2	4	0	3	0	27	62		26·7	26 N	7·09	—	1·67	23	8	0	0	3
a Ladner	49 5	123 4																																					
N. Nicomen	49 12	122 2	59					39 0	—		8 54·0	1	23·0		12 10·0																			7 01	—	1·27	21	9	0	0	1
Quesnelle	52 59	122 30	1700					31 9	—		6 57 0	1	7·0		9 20·7																			0 70	—	0·20	4	27	0	0	0
Cinyoquot	49 11	125 47	40					43 2	—		3 62·0	25	27 5		13 13·9																			16 67	—	1·75	23	8	0	0	3
Cranbrook	49 30	115 50									46 0	1																						0 50	—	0·18	3	28	0	0	0
Massett	53 58	132 9	30																																				
Bullion	52 45	121 55						28·4	—		5 47·0	29	7·0		10 12·8																			2 74	—	0·60	9	22	0	0	9
Bella Coola	52 20	126 54	15					39 8	—		4 55·0	30	17 0		12 7·2																			9 75	—	5·00	12	19	0	0	0
Duncans	48 45	123 42	40					37·3	— 2·1	11	52·0	1	21 0		20 11·3																			5 81	−0·64	1·67	12	19	0	0	0
Nelson	49 29	117 21																																					
Matsqui	49 7	122 16						37·5	+ 1·3	12	51·0	3	20 0		11 11·5																			6 10	−2·58	1·04	16	15	0	0	0
Okanagan Mission	49 52	119 29																																					
Alberni	49 15	124 49	300					38·5	—		6 55 1	3	28·9		12 9·6																			6 73	—	1·49	14	15	0	0	0
Saturna Island	48 47	123 12	14					41 7	—		1 51·0	1	30·0		11 6·7																			4 08	—	1·16	16	15	0	0	0
Kaslo	49 52	116 57						31·3	—		4 45·0	1	12·0		11 8·5																			2 85	—	0·58	10	21	0	0	0
Cape Scott	50 48	128 27						41·1	—		4 50·4	27	24·0		11 8·8																			17 45	—	2·26	27	4	0	0	0
N.-W. TERRITORIES:																																							
Medicine Hat	50 1	110 37	2161	30·05	30·61	29·28	1·33	27·3	+ 8·0	17	54·8	29	−13·0		13 18·5			4	3	8	0	3	3	12	6	14	6	10	62		20 0	21 W	0·30	−0·25	0·20	1	26	0	0	0
Edmonton	53 33	113 30	2158	29·97	30·66	29·29	1·40	23·1	+ 8·6	18	50·0	29	−24·0		13 15·9			4	4	1	2	5	1	1	3	14	8	27	62		12 3	21 NW	1·04	+0·34	0·22	9	18	0	0	0
Swift Current	50 20	107 45	2439	30·09	30·83	29·11	1·72	19·5	+ 9·9	15	44·0	29	−27·0		13 16·2			5	2	2	0	0	2	6	6	17	16	13	62		27·3	20 W	0 50	−0 28	0·10	12	18	2	0	0
Qu'Appelle	50 30	103 47	2115	30·07	30·72	29·34	1·38	11·9	+ 3·8	18	42·3	30	−34·4		14 11·9			7	8	4	1	4	5	8	13	7	17	3	62		20 8	21 W	1·51	−0 99	0·30	11	18	0	0	3
Calgary	51 2	114 2	3389	30·01	30·76	29·46	1·30	26·3	+ 7·2	17	60·0	29	− 3·8		13 18·1			6	6	2	2	1	3	0	4	30	5	15	62		46 0	21 W	1 85	+1 26	0·60	5	26	0	0	1
Prince Albert	53 10	106 0	1432	30·01	30·56	29·26	1·30	10 3	+ 6·5	16	52·0	29	−34·5		14 17·8			6	16	4	0	2	1	4	6	5	1	45	62		9 0	15 N	0 34	−0 40	0·15	7	24	0	0	0
Battleford	52 41	108 20	1620	30 08	30·68	29·33	1·35	14·6	+ 7·7	10	48·0	29	−31·0		14 14·8			7	11	7	18	20	180	10	53	233	122	101	744	6 3	17·3	21 W	0 57	+0 25	0·12	9	16	0	0	0
Qonikup	53 30	101 20																																					
a Banff	51 10	115 35	4542	30·12	30·93	29·49	1·53	23·6	—		6 49·3	29	− 6·0		11 12·8			5	1	1	2	0	0	1	27	7	8	21	62		20·0	20 SW	0·92	—	0·22	10	19	0	0	0
Chaplin	50 27	106 40	2202					14·4	+ 4·3	18	42·0	29	−33·0		13 11·8																			0 60	+0 23	0·20	5	26	0	0	0
Moose Jaw	50 21	105 35	1745	12·4	—	8 41·0	29	−31·0		14 15·4						1	1	1	5	0	0	16	16	22	62										8 23	0	0	0	0
Regina	50 27	104 37	1885	12·8	+ 7·3	17	42·0	2	−37·0		14 22·2																							0 21	−0 12	0·05	9	22	0	0	0
Indian Head	50 28	103 40	1924																																				
Cannington Manor	49 43	102 2	2064																																				

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PRESSURE, TEMPERATURE, WIND AND PRECIPITATION AT STATIONS IN THE DOMINION OF CANADA, DECEMBER, 1901.

a. Barometer not reduced to Sea Level. *Stations not furnished with Registering Thermometers.

STATION.	Latitude N.	Longitude W.	Elevation above Sea Level, in feet.	Pressure. Mean reduced	Pressure. Highest.	Pressure. Lowest.	Pressure. Range.	Temperature. Mean.	Temperature. Difference from average.	Temperature. Years observed.	Temperature. Highest.	Temperature. Date.	Temperature. Lowest.	Temperature. Date.	Temperature. Mean daily range.	Mean temperature of the Dew point.	Mean relative Humidity.	Mean amount of Cloud.	No. of days completely clouded.	Direction of Wind from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	C.	Total number of hours.	Velocity of Wind. Mean miles per hour.	Highest day's velocity.	Date and direction from	Precipitation. Amount.	Difference from Average.	Heaviest fall in month.	Days with .01 or more	No. of Fair days	No. of Auroras.	No. of Thund. storms	No. of Fogs.
ONTARIO—(*Continued.*)	° ′	° ′		in.	in.	in.	in.	°	°		°		°																			in.	in	in.						
Whiteside	45 0	79 30	....	....	....	....	....	21·0	— 0·5	18	48·0	14	— 7·5	20	14·5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3·83	—1·03	1·00	8	23	0	0	0
Orillia	44 34	79 24	....	....	....	....	....	21·3	— 1·0	9	45·5	13	— 7·0	16	21	14·6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3·05	—0·15	0·69	10	18	0	0	0
Coldwater	44 38	79 40	....	....	....	....	....	20·7	— 1·0	15	47·5	13	— 8·6	20	14·2	....	....	....	....	0	8	3	20	0	6	2	21	2	62	....	....	....	4·02	—0·01	1·00	13	18	0	0	0
Beatrice	45 8	79 20	....	....	....	....	....	19·9	+ 0·4	25	46·0	13	— 9·0	20	15·2	....	....	....	7	15	7	0	1	29	14	2	6	16	30	93	....	....	....	3·32	—1·32	1·20	10	18	0	0	1
Gravenhurst	44 54	79 20	770	....	....	....	....	21·1	— 0·1	30	48·0	14	—12·0	20	15·1	....	....	....	6	8	10	2	4	25	16	4	9	9	14	93	H	IV	12 SE	2·69	—0·85	0·68	11	18	0	0	0
Haliburton	45 1	78 28	....	....	....	....	....	19·6	— 0·1	13	45·0	13	—16·0	21	15·6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3·24	+0·58	1·30	10	20	0	0	0
•Point Clark	44 5	81 44	595	....	....	....	....	26·8	— 1·9	29	41·0	1-13	4·0	18	—	....	....	....	4	0	19	2	5	2	38	19	7	1	0	93	IV	VII	31 W	2·80	—0·03	1·50	7	21	0	0	0
Birnam	43 2	81 55	....	....	....	....	....	23·7	— 3·1	19	58·5	13	— 5·0	19	12·1	....	....	....	....	....	6	2	2	3	9	5	8	21	6	62	....	....	....	1·95	—1·17	0·99	9	20	0	0	2
London	42 59	81 13	808	30·05	30·45	29·57	0·88	24·8	— 2·8	18	57·0	14	— 4·5	18	14·5	21·2	84	5·5	8	1	5	1	2	0	19	30	35	0	93	....	....	....	2·51	—0·69	0·63	9	14	0	0	0
Port Stanley	42 40	81 12	592	30·06	30·44	29·61	0·83	25·7	— 2·8	27	51·2	14	— 7·0	21	13·2	....	....	....	....	....	52	68	51	103	16	101	19	146	8	744	11·5	27·3	31 W	4·46	—2·04	1·38	17	13	0	0	3
Woodstock	43 8	80 47	980	30·06	30·44	29·55	0·89	24·6	— 1·6	26	57·0	13	— 5·0	21	15·5	....	....	....	8	12	232	0	40	0	51	32	268	26	95	744	9·5	26·0	22 NW	5·13	—2·67	1·30	9	21	0	0	0
Port Dover	42 47	80 13	635	....	....	....	....	24·8	— 3·5	28	49·4	1	— 9·2	18	12·2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4·44	—1·47	0·93	14	17	0	0	0
Pelee Island	41 50	82 38	....	....	....	....	....	26·1	— 4·2	23	48·5	2	— 3·0	16	7·9	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	0·75	—1·35	0·47	3	28	0	0	0
Paris	43 12	80 25	840	....	....	....	....	25·2	— 1·7	11	58·0	14	— 7·0	21	18·9	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·85	0·57	0·81	6	25	0	0	0
St. Mary's	43 15	81 11	1040	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
•Biscotasing	47 3	82 8	....	....	....	....	....	10·3	—	5	33·0	23	—35·0	19	—	....	....	....	....	....	18	20	3	27	0	0	1	24	0	93	....	....	....	1·11	—	0·30	8	23	0	0	0
Calvin	46 15	81 12	....	....	....	....	....	14·9	—	7	52·0	14	—38·0	17	17·0	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·78	—	0·61	10	18	0	0	0
Agincourt	43 47	79 16	....	....	....	....	....	22·8	—	4	63·0	14	—13·0	21	14·0	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·68	—	0·62	9	22	0	0	0
North Bay	46 34	79 30	....	....	....	....	....	16·3	—	6	45·0	14	16·0	16	14·2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3·39	—	1·03	14	24	0	0	0
Hamilton	43 16	79 54	303	....	....	....	....	27·0	— 0·4	25	61·3	13	— 4·0	15	12·2	....	....	....	....	....	4	4	3	1	1	2	12	1	3	31	....	....	....	3·41	+0·57	1·08	8	23	0	0	4
Port Hope	43 56	78 20	....	....	....	....	....	24·1	—	5	59·0	14	—10·0	19	15·6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4·31	+1·78	1·12	13	18	0	0	0
Kinmount	44 45	78 38	....	....	....	....	....	20·6	—	4	49·0	14	—14·5	21	13·8	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4·06	—	1·15	13	18	0	0	1
Cockburn Island	45 57	83 18	610	....	....	....	....	19·5	—	4	41·0	14	— 6·0	15	16·3	....	....	....	....	....	7	8	1	16	15	2	5	6	2	62	....	....	....	1·92	—	0·42	10	21	0	0	1
Chatham	42 23	82 12	595	....	....	....	....	24·5	— 4·0	11	57··	14	— 3·0	19	11·7	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3·22	+0·53	1·13	11	20	0	0	0
Dalhousie Mills	45 20	74 29	....	....	....	....	....	18·0	—	2	38·0	29	— 3·0	18	11·4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	—	—	—	—	—	—	—	—
Meaford	44 37	80 37	....	....	....	....	....	25·3	—	3	54·0	14	— 1·0	6	12·4	....	....	....	....	....	8	0	1	5	5	24	6	9	4	62	....	....	....	2·47	—	0·55	7	24	0	0	0
Listowel	43 44	80 58	....	....	....	....	....	22·2	—	7	48·0	13	— 2·0	18	12·0	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3·15	—	1·84	5	26	0	0	0
Bruce Mines	46 18	83 55	....	....	....	....	....	19·6	—	3	41·0	1	—17·0	15	13·9	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·60	—	1·05	6	25	0	0	1
Rat Portage	49 48	94 32	1102	....	....	....	....	7·0	—	3	38·3	1	—33·0	18	16·5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1·10	—	0·20	11	24	0	0	1
Donnville	42 54	79 39	....	....	....	....	....	26·4	—	2	58·2	13	— 7·0	20	13·6	....	....	....	....	....	1	2	0	0	3	10	3	12	0	31	....	....	....	3·59	—	1·19	8	23	0	0	0
•Heron Bay	48 39	87 59	....	....	....	....	....	13·0	+ 1·4	10	34·0	10	—35·0	15	—	....	....	....	....	....	26	5	0	0	2	1	14	2	43	93	....	....	....	2·15	+0·50	0·40	9	22	0	0	0
Sturgeon Falls	46 16	79 54	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
St. Catharines	43 10	79 17	....	....	....	....	....	27·5	—	1	62·0	14	0·0	21	12·7	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3·05	—	1·04	8	19	0	0	0
QUEBEC:—																																								
Montreal	45 30	73 35	187	30·04	30·58	29·42	1·16	21·6	+ 2·3	27	59·1	14	— 4·7	16	11·4	....	84	....	....	....	60	107	93	71	93	72	164	64	20	744	14·2	24·2	15 W	4·68	+1·03	1·08	14	15	0	0	2
Richmond	45 40	72 8	435	....	....	....	....	20·2	+ 3·8	25	72·0	15	—21·0	6	12·1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	0·60	—2·32	0·60	1	30	0	0	0
Brome	45 10	72 36	....	....	....	....	....	20·3	+ 1·3	18	57·0	14	—20·0	6	14·3	....	....	....	....	....	9	4	25	2	10	21	22	0	0	93	....	....	....	2·25	+0·07	0·50	8	20	0	0	0
Quebec	46 48	71 13	296	30·03	30·60	29·40	1·20	18·9	+ 3·7	27	54·5	15	—10·0	17	12·6	....	....	....	8	17	29	223	36	35	6	240	114	53	8	744	13·6	38·7	10 NE	3·20	—0·49	0·58	16	15	0	0	2
Chicoutimi	48 25	71 15	150	....	....	....	....	11·3	+ 1·2	25	51·9	15	—24·8	17	16·7	....	....	....	7	14	0	6	0	30	0	14	0	37	6	93	H	VI	13 SE	3·86	+0·08	0·85	11	20	0	0	0
Father Point	48 31	68 19	20	29·99	30 62	29·38	1·24	19·5	+ 3·6	4	58·8	15	—12·3	22	14·5	....	....	....	8	16	37	16	113	21	125	49	315	43	25	744	19·8	48·0	4 E	4·50	+1·07	0·84	19	12	0	0	0
Cape Chatte	49 6	66 45	....	....	....	....	....	22·7	+ 4·3	17	55·0	15	4·0	22	—	....	....	....	....	....	4	4	11	2	5	16	21	1	29	93	....	....	....	....	....	....	....	....	....	....	....
Bicquette	48 25	68 55	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
•Cape Magdalen	49 16	65 20	....	....	....	....	....	22·9	+ 4·3	19	55·0	15	4·0	21	—	....	....	....	....	....	0	3	3	6	27	5	1	40	8	93	....	....	....	3·02	—0·12	0·60	11	20	0	0	0
Anticosti, W. Pt.	49 52	64 32	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Anticosti, S.W. Pt	49 24	63 35	30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Abitibi	48 43	79 22	....	....	....	....	....	9·0	—	5	36·0	13	—35·0	16	18·6	....	....	....	8	9	13	0	0	2	20	0	1	9	48	93	I	VI	22 S	3·74	—	0·94	7	24	0	1	0
•Anticosti, E. Pt	49 6	61 42	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Bird Rocks	47 51	61 8	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Sherbrooke	45 24	71 55	....	....	....	....	....	19·0	—	1	60·0	30	—15·1	7	19·3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2·55	—	0·56	11	20	0	0	0
Percé	48 31	64 12	50	....	....	....	....	22·7	—	3	41·6	15	— 4·9	5	10·6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3·90	—	0·65	16	10	0	0	4
St. Agathe des Monts	46 2	74 25	....	....	....	....	....	16·7	—	3	50·0	15	—16·0	16	14·3	....	....	....	....	....	0	0	4	4	2	0	19	2	0	31	....	....	....	—	—	—	7	24	0	0	0
NEW BRUNSWICK:																																								
Fredericton	45 57	66 36	164	30·05	30·66	29·23	1·43	22·7	+ 3·9	28	54·8	14	—11·5	7	20·2	....	....	....	7	13	1	8	1	18	1	11	10	33	10	93	7·9	19·0	17 NW	6·42	+2·94	1·30	14	15	0	0	1
Chatham	47 3	65 29	21	30 00	30·65	29·32	1·33	20·8	+ 3·2	27	52·0	14	—14·0	22	18·9	....	....	....	6	11	4	10	10	2	0	7	11	7	11	62	....	15·0	4 N	4·13	+0·91	1·06	13	14	0	0	0
Grand Manan	44 47	66 46	49	30·01	30·57	29·14	1·43	30·7	+ 2·3	17	57·0	10	6·0	22	14·3	....	....	....	7	9	11	4	8	3	4	5	19	6	2	62	....	31·3	4 N	6·80	+2·38	1·58	17	12	0	0	0

| | | |

OBSERVATIONS AT STATIONS REPORTING RAIN, SNOW, WEATHER, &c., DURING DECEMBER, 1901.

STATIONS.	Rainfall.					Snowfall.				Remarks.
	Amount in inches.	No. of Days '01 or Over.	No. of Fair Days.	Heaviest Fall in Month.	Date.	Amount in inches.	No. of Days.	Heaviest Fall in Month.	Date.	
	in.			in.		in.		in.		
British Columbia—										
Port Essington	25·62	21	10	4·62	28	1·6	2	1·5	30	Not enough ice to block Skeena River.
Naas Harbour	12·93	11	19	3·03	28	2·0	1	2·0	30	Fog on 5 days.
Caulfields	6·07	17	10	1·03	22	.....	.....	.....	.....	Fog on 5 days.
Coquitlam	10·08	17	14	2·21	22	.....	.....	.....	.....	
Kuper Island	5·87	22	9	1·14	7	.....	.....	.....	.....	Fog on 19th, 20th.
Goldstream Lake	10·01	21	10	2·71	4	.....	.....	.....	.....	
Royal Oak	5·10	14	17	1·30	2	.....	.....	.....	.....	
Nanaimo	4·79	13	18	1·30	7	.....	.....	.....	.....	
N. W. Territories—										
Stirling	.....	.....	29	.....	.....	4·0	2	4·0	12-13	
Coutts	.....	.....	25	.....	.....	10·8	6	4·0	26	31st, snow nearly all gone.
Saltcoats	.....	.....	28	.....	.....	4·0	3	2·0	9	
Broomhill	.....	.....	24	.....	.....	14·3	7	5·0	10	
Didsbury	.....	.....	27	.....	.....	12·5	4	4·0	14	Snow nearly all gone.
Innisfail	.....	.....	21	.....	.....	8·3	10	6·0	14-16	
Beaver Hills, N.E.	0·30	1	25	0·30	28	4·7	5	2·0	17	
Strathcona	0·02	1	23	0·02	28	8·1	8	3·0	14	31st, no sleighing.
Weyburn	.....	.....	23	.....	.....	16·0	8	4·0	26	
Regina	.....	.....	24	.....	.....	4·0	7	2·0	9	
Beaver Hills, E.	0·25	1	24	0·25	28	5·3	6	1·5	17	28th, strong chinook wind.
Manitoba—										
Pembina Crossing	.....	.....	.....	.....	.....	.....	13	.....	.....	
Norquay	.....	.....	.....	.....	.....	4·0	5	2·0	6	
Oakbank	.....	.....	.....	.....	.....	5·0	8	2·0	6	Fine mild month.
Morden	.....	.....	.....	.....	.....	4·5	6	3·0	8	
Belmont	.....	.....	.....	.....	.....	.....	4	.....	.....	
Deloraine	.....	.....	.....	.....	.....	12·5	10	3·0	10	
Ontario—										
Westminster	2·68	5	23	1·06	8	9·0	4	6·0	9	
Aurora	1·46	3	21	1·24	15	16·3	8	7·5	11	
Midland	1·93	4	24	0·75	13	2·5	5	2·0	14	
Georgetown	1·59	5	14	0·96	14	17·9	16	7·9	9	Fog on 7th, 8th, 12th, 13th
Mortague	1·57	2	25	1·57	13-14	8·0	4	4·0	15	17th, —12°.
Arden	3·31	9	20	1·32	15	11·0	5	6·0	15-16	
Jermyn	1·20	1	24	1·20	14	16·0	6	4·0	15	
Parma	3·27	4	22	1·50	15	49·0	7	30·0	17	
Wooler	2·68	4	23	1·32	13	7·0	6	3·0	14	
Wiarton	1·84	2	22	1·29	14	24·0	7	8·0	19	
Lansdowne	0·28	3	24	0·22	10	6·0	5	2·0	8	
Wyoming	2·75	3	25	1·40	14	20·0	3	12·0	4	
Goderich	1·50	2	24	1·00	13	16·0	6	11·0	19,	
Sunshine	1·70	3	21	1·05	14	18·7	8	6·0	20	
Deer Park	2·55	4	21	1·29	13-14	10·2	8	4·0	18	
Ennismore	0·90	1	26	0·90	14	5·0	3	3·0	9	
Ursa	2·00	3	24	0·87	13	20·0	6	6·0	9	
Elgin	1·65	1	26	1·65	14	18·0	4	7·0	16	
Dutton	0·91	1	25	0·91	13	12·0	5	5·0	16	
Croydon	3·20	5	24	1·40	15	7·5	3	3·0	29	
Orangeville	1·45	3	24	0·65	9	14·3	5	9·4	11	
Cayuga	2·28	4	20	1·22	14	6·0	7	4·0	24	
Scarborough	1·98	5	17	0·84	10	9·4	12	2·5	17	
Lion's Head	2·25	3	...	1·14	13	.....	.....	.....	.....	
Uxbridge	1·21	3	25	0·83	14	12·5	5	7·5	9	
Emsdale	1·56	2	16	1·56	13-14	19·0	13	6·0	10	
Oliver's Ferry	2·15	1	25	2·15	14	14·0	5	4·0	17	
Huntsville	2·35	3	24	1·45	14	14·0	5	9·5	10	
Dealtown	1·74	3	22	0·93	14	12·0	7	6·0	9	
Watford	1·96	3	.....	0·75	13	.....	.....	.....	.....	
Kitley	2·39	3	21	1·25	15	12·5	7	6·0	15	
Westport	2·26	3	19	1·86	14	17·5	11	6·0	15	
Port Burwell	2·59	3	23	1·41	14	18·2	7	5·0	17	
Providence Bay	1·74	4	18	1·50	14	15·6	12	4·0	9	
Missanabie	.....	.....	.....	.....	.....	13·0	6	3·0	8	
Princeton	2·26	4	23	1·57	13-14	15·0	6	6·0	24-25	
New Brunswick—										
Point Escuminac	0·94	5	19	0·61	24	21·1	9	6·2	4	
Nova Scotia—										
Port Morien	2·33	5	19	1·35	4	26·0	7	9·0	27-28	

PROPORTION OF BRIGHT SUNSHINE REGISTERED IN EACH HOUR OF THE DAY DURING WHICH THE SUN WAS ABOVE THE HORIZON IN THE MONTH OF DECEMBER, 1901.

	Hours Ending															
	5 a.m.	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon.	1 p.m.	2 p.m.	3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.
Victoria				0·00	0·05	0·15	0·26	0·26	0·27	0·26	0·22	0·05	0·00			
Nanaimo				0·00	0·06	0·21	0·26	0·37	0·35	0·36	0·28	0·06	0·00			
Agassiz				0·00	0·00	0·06	0·32	0·32	0·27	0·28	0·19	0·15	0·00			
Battleford				0·08	0·25	0·28	0·27	0·28	0·37	0·30	0·13	0·00	0·00			
Indian Head																
Brandon				0·01	0·18	0·33	0·37	0·38	0·37	0·38	0·18	0·00	0·00			
Winnipeg				0·00	0·03	0·13	0·26	0·35	0·37	0·32	0·24	0·09	0·00			
Durham																
Woodstock				0·00	0·09	0·18	0·29	0·31	0·39	0·29	0·19	0·16	0·02			
Toronto				0·01	0·17	0·28	0·40	0·42	0·47	0·40	0·35	0·18	0·01			
Lindsay				0·03	0·07	0·15	0·22	0·31	0·44	0·38	0·19	0·18	0·04			
Barrie				0·01	0·08	0·14	0·28	0·35	0·25	0·21	0·15	0·08	0·00			
Kingston				0·02	0·13	0·25	0·24	0·27	0·35	0·35	0·33	0·22	0·00			
Ottawa				0·00	0·05	0·06	0·15	0·24	0·25	0·29	0·27	0·14	0·00			
Montreal				0·02	0·05	0·07	0·07	0·12	0·17	0·11	0·04	0·00	0·00			
Fredericton			0·04	0·20	0·34	0·35	0·38	0·38	0·39	0·34	0·27	0·01	0·00			

	Victoria.	Nanaimo.	Agassiz.	Battleford.	Indian Head.	Brandon.	Winnipeg.	Durham.	Woodstock.	Toronto.	Lindsay.	Barrie.	Kingston.	Ottawa.	Montreal.	Fredericton.
Mean proportion for month (*Constant sunshine being 1.*)	0·18	0·23	0·20	0·24		0·27	0·22		0·21	0·29	0·22	0·17	0·24	0·17	0·09	0·30
Difference from average	+0·03	—	+0·07	−0·03		−0·09	−0·14		+0·01	+0·06	+0·01	+0·01	−0·02	—	−0·18	−0·01
Maximum daily amount	0·70	0·82	0·87	0·86		0·88	0·89		0·91	0·89	0·96	0·84	0·94	0·60	0·93	0·91
Date	19	11	5	23		14	14		4	5	4	21	5	16	11	6
No. of days completely clouded	15	17	18	15		12	15		15	10	11	11	10	15	21	14

Aurora recorded :—

Where the class of aurora is noted by the observer, it is given (I) being the brightest, (IV) the feeblest in brilliancy.

7. Swift Current, IV.

17. Channel Island.

19. Swift Current, IV.

27. Bowsman, IV.

Thunder recorded on :—

3. New Westminster.
7. Rivers Inlet.
24. Port Essington, B.C.
29. Abitibi.

FORECASTS FOR DECEMBER, 1901.

The forecasts issued by this office at 11 p m. each night are posted up at every telegraph station in Canada, and are for the 24 hours beginning at 8 a.m. the following day.

The number of predictions issued during the month was 1027. These were divided as follows :—

DISTRICT.	No. Issued.	VERIFIED.			
		No. Fully.	No. Partly.	No. Not.	Percentage
Manitoba	85	60	12	13	77 6
Lake Superior	106	90	11	5	90·0
Lower Lake Region	110	94	12	4	90·9
Georgian Bay	110	92	10	8	88 2
Ottawa Valley	96	83	9	4	91 1
Upper St. Lawrence	96	83	9	4	91·1
Lower St. Lawrence	102	89	8	5	91·2
Gulf	102	82	15	5	87·7
Maritime Provinces, West	110	90	11	9	86·8
Maritime Provinces, East	110	89	12	9	86 4
Total	1,027	852	109	66	88 3

In order to obtain the percentage of verification of the predictions, the number partly verified is divided by two and added to the number fully verified, and the result divided by the total number issued.

In ascertaining to what extent the predictions have been verified, the reports from the agents at all observing stations, as well as the telegraphic reports, are used

R. F. STUPART,
Director.

Meteorological Office, Toronto,
26th January, 1902.

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Title Monthly weather review 1901

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